Gleanings in Bee Culture

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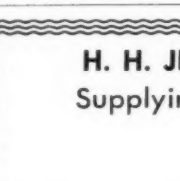

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Monthly HONEY Report

United States Market

November 20, 1953

The following figures represent an expression of current prices from beekeepers and honey packers over the country. They are based on several reports from each state averaged with the reports in the region. Where insufficient information is returned, prices have been omitted from the chart. Where three figures appear on the chart the first figure represents the low, the middle figure represents the average, and the third figure the high price in cents per pound. Where only two figures are used the low and high are shown.

	North & South Atlantic	South Central	North Central	Midwest	West
Bulk Honey:					
Table Grade	10¾-12½-15c		11-12-14c	11-13-15c	12-13-17c
Industrial Grade	9½-10-14		9-9½-10	10-10½-11	9-10-11
Price to Grocers:					
5 lb. jar - can	19-23-25	20 25	20 21	16-17-18	18 20
3 lb. jar - 12's	25	25	25		
2 lb. jar - 12's	22-23-25	25-29-32½	22 25	23-24-25	23-25-27
1 lb. jar - 24's	23-26-32	25 29	25 26	23-25-26	23-25-27
Comb Honey: Cs. of 24 Sec.	$7.40-9.60-10	$9.60	$8.40	$7.20-7.50-8	$9.60
Retail Price:					
60 lb. can	15-20-22		15 22	16 17	15-16-20
5 lb. jar	23-25-29	22-25-30	22-25-28	20-23-24	20-25-27
3 lb. jar	28-30-33	28½-30-33	28-30-33	30 35	
2 lb. jar	25-33-38	30-32½-35	25-30-33	25-29-34	27-31-35
1 lb. jar	29-35-40	33-35-40	29-33-35	28-33-35	29-32-36
Honey Sales:	Fair	Fair	Fair	Fair	Fair
Estimated Crop: Conditions based on normal %	65	75	70	75	70

In general, honey is moving well and stocks of table grade honey are not large. Prices are firming at retail level.

A few comments were as follows:

"Practically all of the orange and sage honey sold. No rain yet!"—California
"Honey selling well. Best grades in short supply."—S. E. Arizona.
"Many colonies high in stores but low in bees."—Wisconsin
"Dry weather, honey crop to 75 per cent of normal."—Alabama
"Bees going into winter with good stores."—Kansas
"Soil is very dry and moisture is needed badly for the clovers."—Colorado

Canadian Market

(Unless otherwise specified, all quotations are for cases of No. 1 White.)

HALIFAX: Mkt. steady.
Ont., past., paper,
24/2's $12.50
24/1's 6.50

SAINT JOHN: Mkt. steady.
Ont., past., glass,
24/16-oz. ..... $ 7.00
paper,
24/1's 5.80
24/2's 10.20
metal, 12/4's 10.60

MONTREAL: Mkt. steady.
Que., White, metal,
24/2's ..... $ 9.90-10.25
12/4's 9.25- 9.80
glass,
24/8-oz. 4.10- 4.35
24/16-oz. .. 6.00- 6.50
dark, metal,
24/2s 6.50- 6.75

OTTAWA: Mkt. steady.
Ont., past., metal,
24/2's $10.75-11.00
12/4's 9.90-10.75
paper, 24/1's 5.50

TORONTO: Mkt. firm
Ont., past.,
paper, 24/2's $ 9.75-10.25
metal, 24/2's 10.25-10.75
glass, 24/16-oz. 6.00- 6.50
unpast.,
paper, 24/2's 9.50-10.00
glass, 24/16-oz. 6.00- 6.50

WINNIPEG: Mkt. steady.
Man., metal,
24/2's ..... $ 9.60
12/4's 9.05
past., paper,
48/1's 11.35
24/2's 10.50

REGINA: Mkt. steady.
Sask. past., paper,
48/1's $10.80-10.95
metal,
24/2's 10.60-10.80
12/4's 10.30-10.50
6/8's 10.30-10.40
Sask., metal,
12/4's 9.50

SASKATOON: Mkt. firm.
Sask., metal,
24/2's $10.15
12/4's 9.50- 9.75
past., paper,
48/1's 10.80-10.90
metal,
24/2's 10.55-10.65
12/4's 10.40-10.50

EDMONTON: Mkt. steady.
Alta., metal,
12/4's ..... $ 8.53- 9.15
6/8's 8.50
past., paper,
48/1's 10.30-10.43
24/2's 9.52- 9.73
metal,
12/4's 9.47- 9.62
B.C., liquid, glass,
12/1's 4.25

CALGARY: Mkt. steady.
Alta., metal,
12/4's ..... $ 8.75- 9.00
6/8's 8.40- 8.50
past., paper,
48/1's 10.50-11.00
24/2's 9.45
metal, 12/4's 9.15- 9.48

VANCOUVER: Mkt. steady.
Alta., past., carton,
24/2's ..... $ 5.65
24/2's 10.65
metal,
24/2's 11.20
12/4's 10.70
liquid, past., glass,
24/12-oz. 6.05

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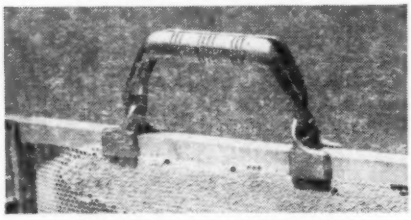

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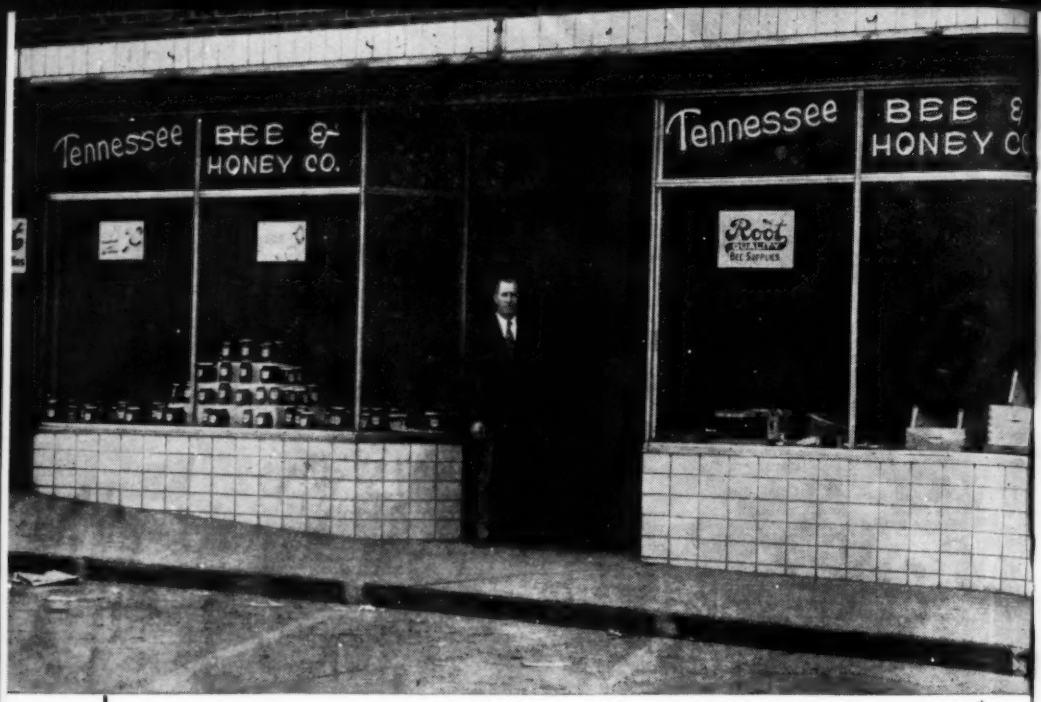

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Gleanings in Bee Culture

Created to help beekeepers succeed

Let Santa Help You Sell

By S. K. Hampton, Salt Lake City, Utah

GIVING HONEY for a Christmas gift can be worked up into a very good business for beekeepers and honey packers all over the country. We were able to do it in Utah by having Santa help us sell.

During one week of the Christmas season local honey packers displayed their product in one of the largest department stores in Salt Lake City. We had our own Santa Claus giving out free samples of honey on a wooden spoon. This attracted the children who bring their parents, then we give the latter our sales message while their children eat the sample of honey. Giving out samples of good honey can win many friends.

In selling honey most all honey salesmen and beekeepers have heard the following story many times. A woman will say, "We do not use much honey at our house, or we do not like honey, or we have honey in the house but we eat very little of it".

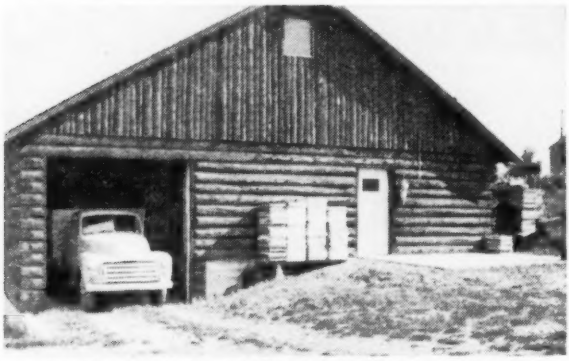
If you could go to this housewife's home you would find she had purchased some dark, strong honey at some time. These women have to be sold by letting them taste a high grade honey. I have found that these same women then buy honey the year round if it has a nice color and a mild flavor.

If we have any dark honey we do not dump it into the food stores but either sell it to bakers or use if for fall or spring feed for our bees.

B & Z Library

One Man's Honey House

By John W. Holzberlein, Jr., Meeker, Colorado



South end of Mr. Holzberlein's log honey house.

IT HAS BEEN four years since we built our honey house here at Meeker, and that should be long enough for us to know that we like it. There is no reason why we should not like it for 20 years of commercial honey producing preceded its building. And during those 20 years we had the opportunity to observe many of the best honey-handling plants between the middle west and the Pacific coast which gave us the chance to incorporate many of those good features in our own building.

The pictures will tell most of the story, but some explanation will perhaps be necessary. If any ideas are transmitted to the builders of future honey houses the purpose of this article will have been accomplished. It is a'most certain that we will soon be confronted by standards that will have to be met before honey is extracted or packed.

Honey is one of our most delicious foods, and just because it is physically incapable of carrying germs to its human consumers is no reason for it to be handled in an unsanitary or unsightly building. If the proper equipment is at hand it is not difficult to extract and pack honey neatly. Most of the mess we often see is not only unnecessary, but slows down production as well.

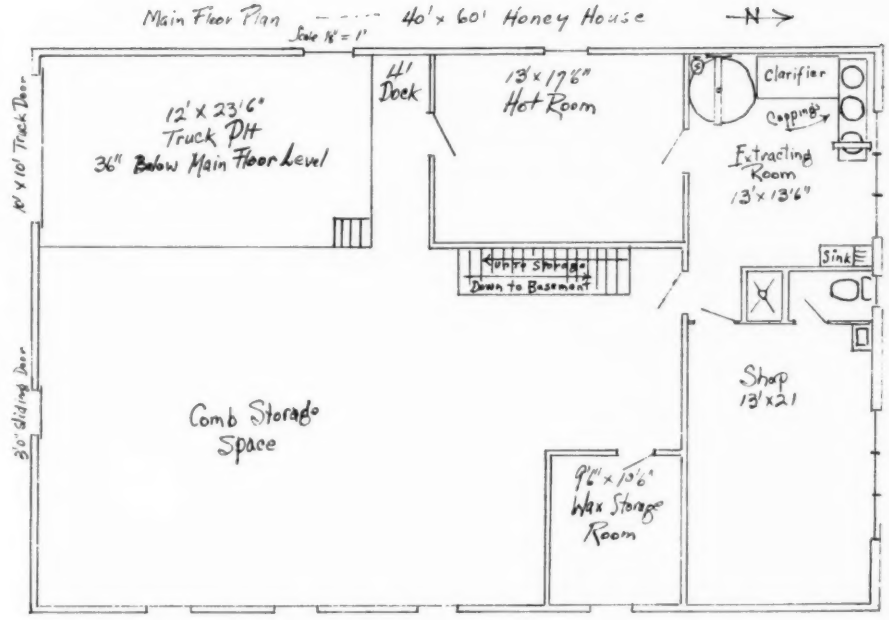
Our Ideas of a Honey House

In the first place we decided to have our building center around the extracting since that was the most important single operation performed.

The second thought was given to storage for that is one of a beekeeper's great problems. There is the need to hold a large part of our equipment and often a large part of our crop for months, and safe, cheap storage space is important.

Our third thought was of safety, principally from fire. We have been criticised because our building is of log construction instead of some more fire resistant material. However, my contention is that once the supers and combs start to burn it is next to impossible to extinguish a honey house fire until it is a total loss. It was with the idea of preventing a fire from ever getting started that we have made most of our effort.

The heating is all from a central steam boiler in the basement. The boiler is fired by an automatic bin-feed coal stoker. Since the basement is all of concrete the heating is pretty well taken care of. In the shop upstairs we have an old cook stove which we use mostly for burning scrap. But it, too, is on a concrete floor. Our wax melting is all done in the extracting room in the off season, and only steam is used for heat. Beeswax and fire should be kept as far apart as possible, but with steam for heat no danger is present. Our automatic motors and other points of possible danger are covered by automatic fire extinguishers.

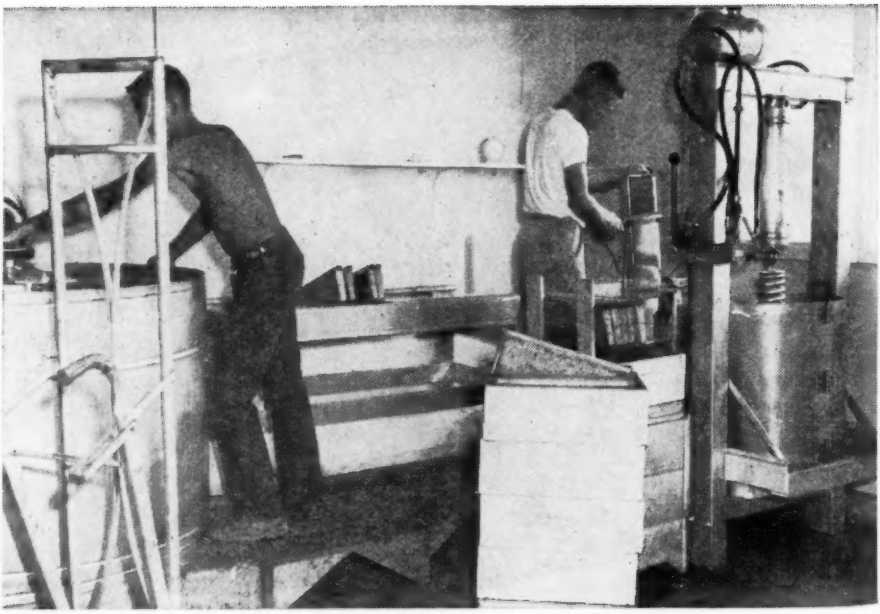


Our fourth aim was to have honey and equipment travel as short a distance and as nearly in a circle as possible. All equipment on the main floor is moved with a hand truck. As can be seen from the main floor plan the supers leave the truck full of honey and return to it empty, having completed a circle and having been extracted enroute. With our long honey flow most of our extracting combs are used twice and sometimes three times in one season which makes this method of handling very important.

DURING THE latter part of the season when most of the crop is removed from the hives the nights are quite cool at this altitude (Meeker is 6,200 ft.) and since our honey is extracted a day or two after it is gathered it is necessary to keep it warm. We use escapes a great deal and this further increases the need for warming. For that reason the honey goes first to the "Hot Room" when leaving the truck. This room is steam heated and thermostatically controlled. It will hold two truckloads of honey which insures the extractors a day's supply ahead most of the time. We hold this hot room at about 95° which is close to hive temperature, warm enough for the honey to flow well, but not so hot as to cause the combs to sag.

Owing to the heavy body and high viscosity of Intermountain honey the basket type extractor is used. A radial machine is faster and more economical to keep up, but especially when used by inexperienced help, comb breakage is so high in this area when a radial is used as to offset these advantages.

From the extractor the honey flows by gravity through a Neises clarifier which removes nearly all of the foreign particles and further warms the honey so that air bubbles readily settle out in the storage tanks below. No pump is used for the storage tanks are in the basement directly below the extracting area. With heavy supers our extracting crew of two can extract 75 to 80 60-pound cans of honey, clean up the place, and have the honey in the can by 5 or 5:30 in the evening. If we could just find as certain and efficient a way to get the supers filled as we have worked out to get them emptied our problems would all be marketing problems and maybe then we could get them worked out, too.



Extracting in the Holzberlein extracting room.

Handling of Cappings

We handle cappings in a press as shown in the picture. This is what we consider an improvement on the Bradshaw press, but essentially the same principle. We darken no honey. The Brand melter is fine for one who has all white super combs, but we have many dark ones and perhaps always will have.

The press really needs an electrically driven hydraulic pump with an automatic pressure switch to maintain automatic pressure on the wax cake once pressure is begun. We hope to install this feature before next summer.

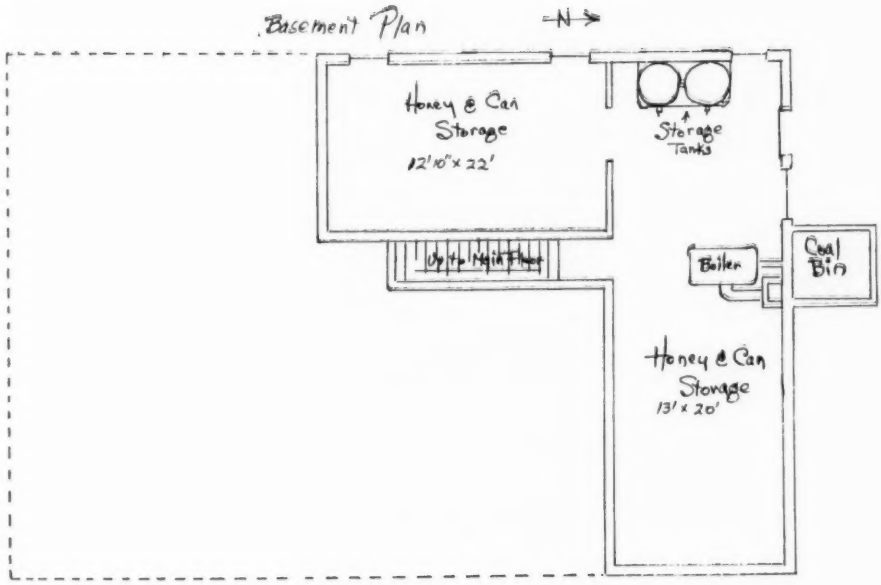
By the use of the rail car spring and the hand pump it is possible to get all the gettable honey out of the cake of cappings, only it necessitates several trips back to the honey house in the evening to get the afternoon's cappings successfully pressed. We have three baskets, but have never used but two. It pays to press less than a full basket of cappings, finished with a pressed cake of four to five inches in thickness. The honey does not seem to get out of a thicker cake nearly so well.

The basement is used for empty and full cans as well as for the boiler unit and the honey storage tanks. We can handle a crop of 3,000 cans without excessive crowding although we have not yet had the pleasure of doing so. By storing empty cans along the side of a room and then stacking them on the opposite side of the room as they are filled comparatively little unoccupied space is needed.

There are 105 cubic yards of concrete in the building. All floors except those of the storage loft are of concrete. This loft is a sort of catch-all for light equipment; the transport nucs we use in California each spring; empty bee cages; boats; saddles; and all the odds and ends that accumulate around a honey house. It enables us to keep the main floor fairly neat. The loft can be reached from an outside door on the south end that is reached from a truck floor, thus enabling us to load and unload equipment without the use of the stairs. There are many uses for a hillside.

The roof is of V-groove aluminum over solid shiplap sheathing. It is bee tight and should last for many years.

OF COURSE we made some mistakes which would be corrected if we built again. The biggest mistake was the failure to get pipes for radiant heat into the hot room floor. It would have been easy to do and would have been



the ideal way to heat supers of honey. We just overlooked it. We use a steam unit heater and while it does a good job it never gets the bottom super quite warm enough.

Another mistake of questionable seriousness was the use of sliding outside doors. They take up less room and were used for that reason. But it is next to impossible to make them bee tight. The building is mouse proof, all right, but in the fall, especially when we melt wax the neighbor's bees find their way inside and make a nuisance of themselves.

The building has been generally satisfactory, however, and makes light, short work of many of the old, unpleasant jobs that are a part of honey production. It is easy to keep clean and neat. It furnishes a warm, pleasant place to work in winter months when we repair and paint our old equipment and build all of our new wooden equipment. There is no question but what the building has been and will continue to be a good investment.

Illinois Meeting

More than 60 beekeepers attended the 63rd annual convention of the **Illinois State Beekeepers' Association,** November 6 and 7, at the St. Nicholas Hotel, Springfield, Illinois. President Ralph Bessey, of Dwight, presided.

Stillman J. Stanard, director of the State Department of Agriculture, addressed the assembly, saying that the Department would cooperate with the members of the association in every way possible.

Some of the other speakers during the sessions included George Iftner, assistant director of Agriculture; Walter Barth, assistant editor of Gleanings; Art Kehl, Watertown, Wisconsin; E. V. Stadel, assistant secretary of marketing, Illinois Agricultural Association; Bud Cale of Dadant & Sons, Hamilton, Illinois; Karl Killion of Paris, Illinois, and L. R. Stewart, of Newport, Indiana.

A banquet was held at 6:30 p.m. Friday night in the Anniversary room of the St. Nicholas Hotel, with Mr. Hoyt Taylor as master of ceremonies.

Elections were held during the Saturday morning sessions with the following results: Ralph Bessey and Hoyt Taylor were reelected respectively to president and secretary. Mr. Stockdale, was elected to replace veteran Wesley W. Osborne, Hillsboro, as treasurer.

The Chemotherapy of Foulbrood Diseases of the Honey Bee

By J. E. Eckert, University of California, Davis, Calif.

A MAJORITY of the present generation of beekeepers have been well indoctrinated with the theory that American foulbrood (AFB) is a deadly enemy of beekeeping and that all combs in the exposed colony must be destroyed, preferably by burning, as soon as the disease is found in a colony. Furthermore, they have been told again and again that the exposed hive parts must be scraped and **sterilized**, preferably by scorching with fire. This procedure has been before us for so many years that many beekeepers have come to believe there is no other way to control this disease, and are now finding it difficult to change their thinking.

My experiences with bee diseases began as a student and inspector in Ohio during the days of the "shaking treatment" when diseased colonies were shaken into clean hives fitted with frames of foundation. The brood was frequently allowed to emerge from the diseased combs before the combs were melted up or burned and the hives disinfected by fire, or by scraping and scrubbing, or by boiling in lye water. In many instances, the shaking treatment not only failed because of carelessness in the operation but sometimes resulted in spreading the disease.

Past Methods of Combating AFB

Then we had the Hutzelman solution with variations of formalin, alcohol, and soap in the attempted sterilization of combs infected with AFB. The chlorine treatment was advocated for a while but both methods were dropped after a few years because they were not effective in many cases.

These attempts at saving the colony or of reclaiming infected equipment resulted in a renewed emphasis on the burning treatment. At present the laws of this state are so strict that one cannot move, handle, or keep AFB combs, even in official research channels for instructional or experimental purposes, without breaking some phases of the law. And yet, in spite of approximately 30 years of burning we still have AFB, an ever-present threat to the welfare of beekeeping.

Disease Resistant Strains

Within the past decade notable progress has been made in the development of strains of bees that show a marked resistance to American foulbrood. Some strains will eliminate the disease from a hive of infected combs, or prevent infection from starting. In other instances, the disease is kept under control but not eliminated and then will break out when the resistant factor is reduced by a daughter queen mating with drones from susceptible stock.

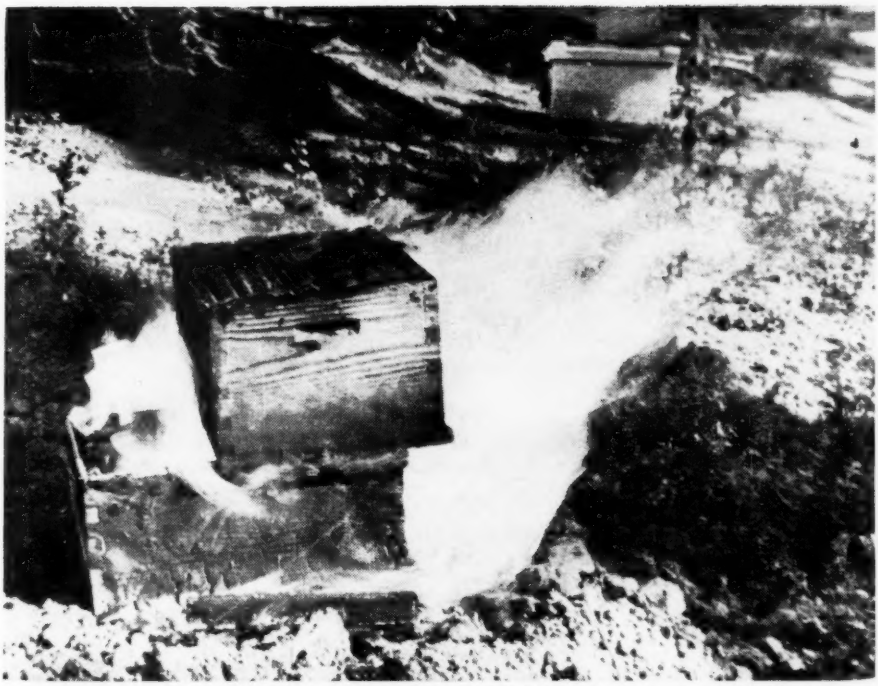
Disease control through breeding resistant strains will receive a deserved boost when more is learned about bee genetics and the techniques of controlled mating.

The Chemical Control

A new approach in the control of American foulbrood was first explored by Dr. Leonard Haseman, and L. F. Childers in 1942 when they started their investigations in the use of the newly discovered sulfa compounds. Their results were published in 1944 and with further particulars in 1945 and in succeeding years.

With the publication of the first results, beekeepers and research workers in various states and in Canada began to test sulfa drugs and other antibiotics against this major disease of the brood of bees. Some of the exploratory work was done in the laboratory and later tested with infected colonies. The research work is progressing in many parts of the U. S. and Canada, and as the observations are evaluated, the techniques are improved and promising aids are being discovered in the control and prevention of both American and European foulbrood.

Many commercial beekeepers are contributing to this developmental



Why burn good equipment? Burning is a total loss but does not eradicate the disease in the other colonies.

work in a practical way. Some of the results have been disappointing, due largely to a lack of information or to carelessness in the methods used.

INVESTIGATIONS in the chemotherapy of bee diseases in the University of California, at Davis, were started in 1945. They have dealt with the cure of AFB and EFB infected colonies rather than with the prevention of the disease in exposed colonies.

Briefly, we have found it possible to cause bees to completely eradicate AFB from infected combs by (1) extracting the honey from **all** combs (the brood should be sealed); (2) diluting the honey and feeding it back to the diseased colony after adding one-half gram of sodium sulfathiazole to each gallon of syrup (sugar syrup can be used); (3) strengthening each colony by adding additional bees, when necessary; (4) establishing a colony in **each hive body of combs** to hasten the cleaning process when the infected colony is in more than one story; (5) **getting brood reared in all cells by working the outside combs through the center of each brood chamber while the colony has access to sulfa stores**; and (6) continuing feeding until brood has been reared in all combs and all signs of disease have disappeared.

As a general rule, the single colonies are then united and held in quarantine, with all their equipment, for the balance of the first season, or if supers are added, queen excluders are placed over the lower brood chambers. Any surplus honey is kept for feed and each colony is given sulfa stores for the first winter. In the spring, each colony is again divided, young laying queens are introduced into the divisions, and frames are exchanged at intervals **to get brood reared in all combs.**

No sulfa is fed the second season, unless a colony breaks down with AFB. (They seldom do under this treatment.) If supers are needed, queen excluders are placed over the lower brood chambers. By the end of the spring brood rearing period most colonies will have used up all of their stores. If no disease appears after brood has been

reared in all combs, during the second season, the colony will remain clean. We have not scorched the inside of any hive in these treatments over a period of eight years.

If the work is done thoroughly the first season, as here outlined, the disease may disappear completely in from two to six weeks after the feeding with sulfa-syrup is started in the spring. Feeding has been done by various types of feeders, and spraying has been used and found effective, especially when bees are gathering nectar. We have also fed the sulfathiazole in pollen cakes, in conjunction with the medicated syrup. We have dusted the combs with sulfa powder but could not keep accurate records of the amount used or of its disposition by the bees.

The writer has found that the bees may not clean out the scales of AFB **unless they need the cells for brood rearing.** Therefore, it is necessary to exchange the center combs of brood with the outside combs in the brood nest until all combs have had brood reared in all or most of the cells. This can be done on each of several inspections during the feeding treatment and again the following spring.

WE HAVE USED aureomycin (Aurofac - D from Lederle Laboratories, which have also supplied the sulfa compounds) but in an insufficient number of cases to arrive at definite conclusions. Reports from other research workers and beekeepers, including Katznelson and Jamieson of Canada, Gochnauer and Studier of Minnesota, Moffett and Holtzberlein of Colorado, Cale of the American Bee Journal, and several others, indicate that terramycin is a specific chemical for the prevention and control of European foulbrood when fed in sugar syrup or sprayed over the brood combs two or three times at weekly intervals in early spring at the rate of one ounce of PFM-25 to eight gallons of water or syrup.

Cale reports that dusting in early spring between the brood combs with one-third ounce of PFM-25 prevented the development of EFB and is "hopeful" that it will prevent AFB as well. Moffett and Holtzberlein report favorably on the use of streptomycin and terramycin in syrup or as a powder in the control of EFB in Colorado.

Find AFB Sulfa-Resistant Strains

Studier, and others, have found that one ounce of terramycin Poultry Formula-25 in eight gallons of syrup fed to bees or sprayed over their combs at weekly intervals has cured colonies infected with AFB.

Studier is the only beekeeper as far as I know, who has reported having encountered sulfa-resistant strains of American foulbrood in colonies, and these he cured with terramycin. In our eight years of using sulfa compounds in the cure of colonies infected with AFB, we have not encountered any resistant strains of **B. larvae,** the cause of AFB.

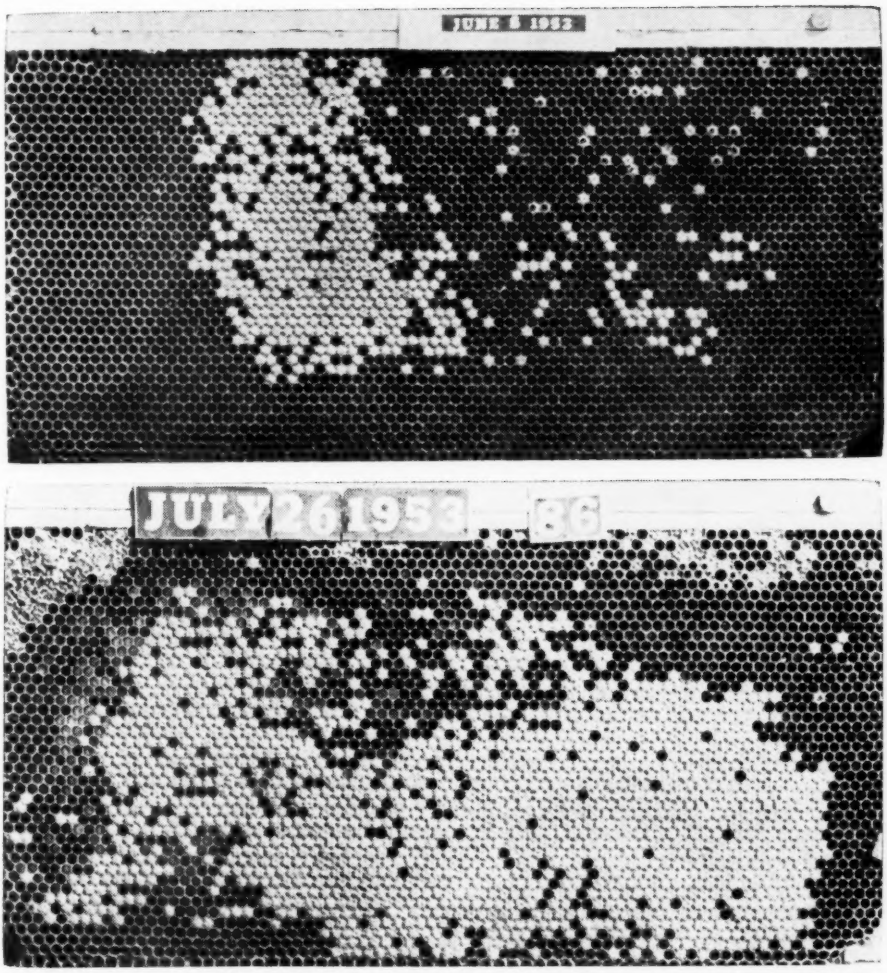
The Need for Inspection

Every beekeeper should be his own inspector and every colony should be inspected regularly in the spring, again before adding supers, before taking off supers and near the end of the fall brood rearing period. He should not depend on the county inspector for his inspection work. The use of chemotherapy in the control of bee diseases cannot take the place of efficient inspections, and lack of adequate inspection service at owner or county level may result in the abuse and misuse of chemical control.

How Can the Antibiotics be used on a Large Scale?

The experience, with antibiotics, of a nationally known beekeeper in California, who also has beekeeping units in other states and in Canada, will show their practical application.

This beekeeper normally kills his colonies in two units in the fall, carrying over enough honey to start with package bees the following spring. Two years ago, he moved part of his colonies to a warmer location and attempted to winter them over. He found about 40 AFB colonies the following spring and concluded that he might have picked up a general infection in an unknown number of combs. He destroyed the infected colonies. He extracted all of his combs that fall, after killing the bees in all colonies,



A comb on June 8 rather badly infected with AFB. It was sprayed with terramycin, one-fourth teaspoon - terracon - five in one quart of water, on two occasions and fed sulfa syrup for six weeks. Eight other similarly infected combs had been placed in the same hive and all showed similar results.

and then fed three rounds of sulfa-syrup during the spring build-up period. He found one diseased colony during the summer and burned it. This fall he again will extract all combs and next spring feed two or three rounds of sulfa syrup.

No sulfathiazole is in the combs during the summer honey flow. If no disease develops during the summer, the combs are free from disease and he will not have to feed the third season, unless he wants to do so for the sake of insurance.

The beekeeping industry of Canada, where the colonies are killed in the fall and hives restocked with bees in the spring, can be safeguarded from both AFB and EFB by the proper use of antibiotics in spring feed, and by getting brood reared in all combs through spring manipulation.

European foulbrood is a factor in some regions in California. Judged by the experiences of beekeepers and research workers in other states, this disease can be controlled by the use of antibiotics in spring feeding. Those who have adopted this practice, are of the opinion that the judicious use of

sulfathiazole or aureomycin or terramycin will also control, or prevent, the development of AFB.

Critics of the use of chemotherapy in the prevention or cure of bee diseases are usually those who have had inadequate experience in the proper use of the antibiotics. They say that once a beekeeper starts to use sulfathiazole, he must continue to use it every year. This statement is not true and is not based on any scientific data. It is the result of faulty reasoning and the lack of experience in the use of antibiotics. Once a colony has been **cured** of the disease, the disease will not recur except from an outside infection. This we have proved experimentally over a period of eight years.

CRITICS ALSO SAY that the bacteria will become resistant to sulfa and then the beekeepers' combs will be all contaminated with AFB, and will have to be burned. Here again, the statement is not based on proven facts, except in one possible instance, and have not been substantiated in other apiaries. Should a strain of AFB develop that is resistant to sulfa, it can be eliminated with one or more of the other antibiotics as was demonstrated in the one instance referred to.

Critics of the chemical treatment say that burning tends to eliminate the susceptible colonies. If only weak colonies became infected with AFB, there might be some reason to this statement, but such is not the case. Burning has not built up resistant strains in the past 30 years, and this certainly should be a long enough trial period.

Then there is the statement that honey will be adulterated and the mere statement that diseases are being treated with chemicals, will ruin the honey market. Here again are scare headlines not borne out by facts. Has the injection of serum into meat or milk animals ruined them for food or milk? Has the use of antibiotics in the poultry industry ruined the sale of poultry? One has to use reason in all things and not close their minds to progress or to progressive methods.

The statement is made by the critics of chemical control that the antibiotics simply cover up the disease and do not effect a cure. We have demonstrated, as others have, that this is not true when antibiotics are used properly; that when a colony is **cured**, it stays that way unless another outside infection is acquired.

Why Burn Good Equipment?

The burning treatment should be retained and it may be more practical for the inspector or the beekeeper to burn the occasional colony found infected with AFB than to attempt to treat it. Haseman, Cale, and others are of the belief that the use of antibiotics has a greater place in **preventing** both American foulbrood and European foulbrood than in treating these diseases. They are probably right.

It seems logical that bee laws should be changed where necessary, to a more scientific and practical approach to the problem of disease control than by requiring the arbitrary destruction of all combs, bees, and honey in a colony that may be found to contain **any** cells of AFB, regardless of the degree of infection or the amount of equipment involved. And most certainly our laws should not prevent or retard research in bee disease control.

Ample evidence has been produced by research workers and by numerous careful beekeepers that the proper treatment with sodium sulfathiazole of a colony infected with AFB will result in effecting a cure of the disease and in maintaining a producing unit. Super combs, containing no scales of AFB, can be used to establish new colonies with the careful use of sulfathiazole and possibly with terramycin, aureomycin, and other antibiotics. The use of terramycin and other antibiotics have been found to be helpful in curing and in controlling both European foulbrood and American foulbrood. These results should be considered in the formulation of bee laws.

A Word of Caution

While the experience of many practical beekeepers and of research workers have shown that certain chemicals can be used in either preventing infection or in curing colonies and equipment infected with AFB or EFB,

(Continued on page 758)

Wisconsin Honey Producing Areas

By John F. Long, Chief Apiary Inspector, State of Wisconsin

THE STATE of Wisconsin can quite well be divided into about four distinct honey-producing areas at the present time. However, boundary lines are not too definite.

In any discussion of Wisconsin honey production, four basic factors influence it. They are length of growing season, basic soil, precipitation, snow and rain and crops produced in the area.

Area I — Questionable

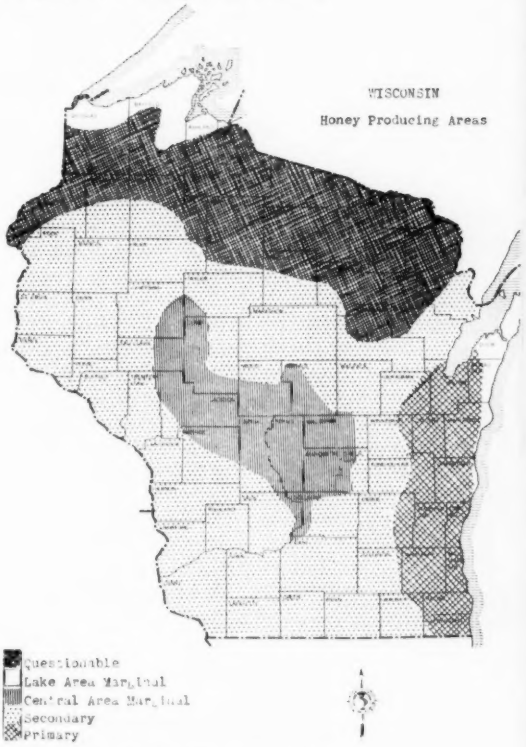
Area I. Once much of this area was a wonderful land for the production of fireweed, raspberry, and goldenrod honey. Today beekeeping in much of this area from a commercial standpoint is no longer possible. Fire prevention, forest crops, along with a short growing season makes beekeeping very doubtful in this area. A land given over to timber and resorts, is not apt to be suitable for honey production.

Area II (a) Lake Area — Marginal

Area II (a). Much of this area has soil very favorable for the growth of white, sweet, and alsike clovers but the influence of the lake winds have a tendency to reduce nectar yields because of many hours of temperatures too low for bees to fly. This prevents rapid build-up of colonies in the spring. Short hours of honey gathering often mean poor crops. When weather conditions are such that bees cannot gather honey and pollen it does little good to have them available.

Area II (b) Central Area — Marginal

Area II (b). In much of this area we find sandy soil, cranberry bogs, marshes, and large areas given over to wildlife refuges, along with many abandoned farms now being reforested, and in some parts of the area much terminal glacial moraines with a wide variety of soils. Certainly not much to offer in the line of honey production, although there is one record from Juneau County of over 70 years with an average crop of 90 pounds surplus. Also within the territory lives Wisconsin's largest producer of comb honey. The average production per square mile would be very low.



Area III — Secondary

Area III. The Western part of this area, much of which is unglaciated soil, is well suited for honey production, white clover and basswood being the most reliable sources of honey. During the past decade the tendency of the southwest part of this area to raise more tobacco, swine, and beef cattle has reduced the honey production possibilities. In the balance of the area dairy farms now are the leading type of agriculture and satisfactory yields of honey are usually obtained. However, shifts from dairy farming to canning crops, soybeans, and garden crops have ruined what were good locations in some counties.

Area IV — Primary

Area IV. While this area is the heart of Wisconsin's manufacturing and industry, most of the rural area is dairy farming, along with some truck farm-

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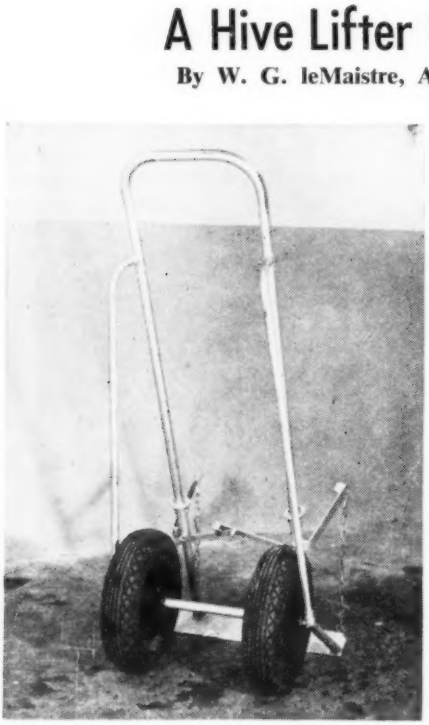
A Hive Lifter Can Save Work

By W. G. leMaistre, Alberta Provincial Apiarist



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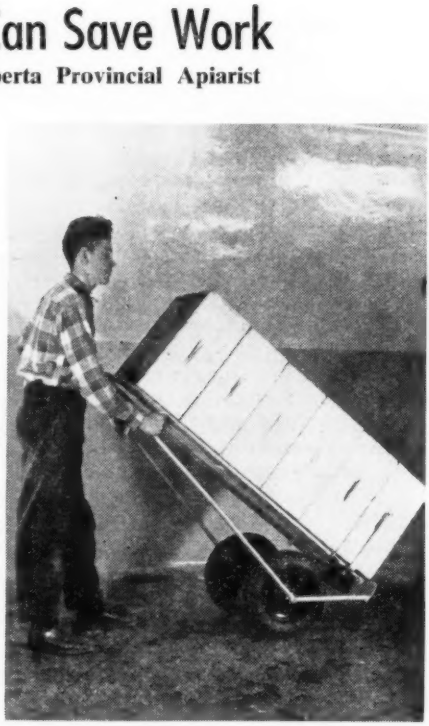

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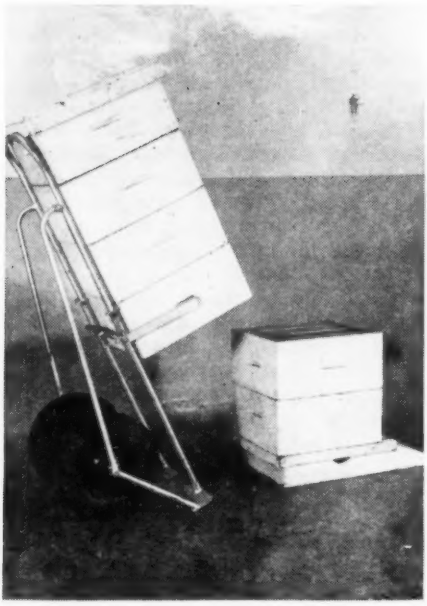

No. 3.

SEVERAL HIVE LIFTERS have been designed. This one embodies ideas used before, also some new ideas. Its construction is simple. It is quickly adjusted and easy to operate.

This device will save labor and time in operating. It will enable one man to handle more units and thus increase his operating efficiency. If beekeeping is to survive the intense competition of other foods where mechanization is reducing costs of production, it must of necessity follow the same trend.

The danger of spreading disease is greatly increased unless thorough inspection of all hives is undertaken. Inspection of hives is not difficult before the supers are put in place on them. However, once supers are stacked on hives and are filled with honey it becomes a very difficult and unpleasant task. It is therefore often neglected.

It is particularly important to inspect all hives at extracting time before removing any supers. Hives may contact disease late in the season or from the super combs given them if these had been on a diseased hive the previous year.

This hive lifter is designed to make it easy to perform this necessary pre-extracting examination of colonies. It can be used to remove, balance and replace any number of full supers above the brood chamber. The arms that hold the supers are readily adjustable to grip at any desired height. In the event that the supers lack handholds a chain can be locked around them. It can also be used to move stacks of supers, either full or empty, over rough or smooth ground. It can readily be adapted for use on honey cans or cases.

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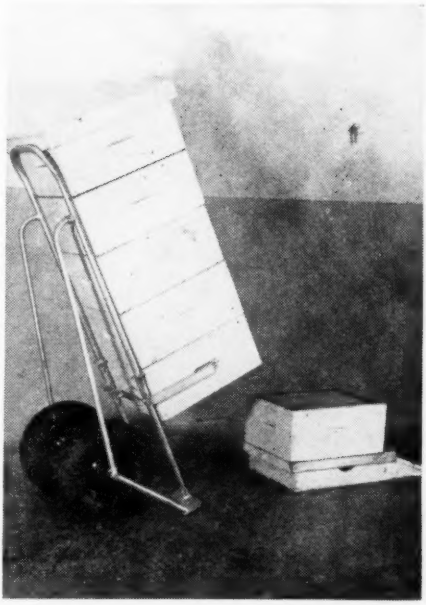
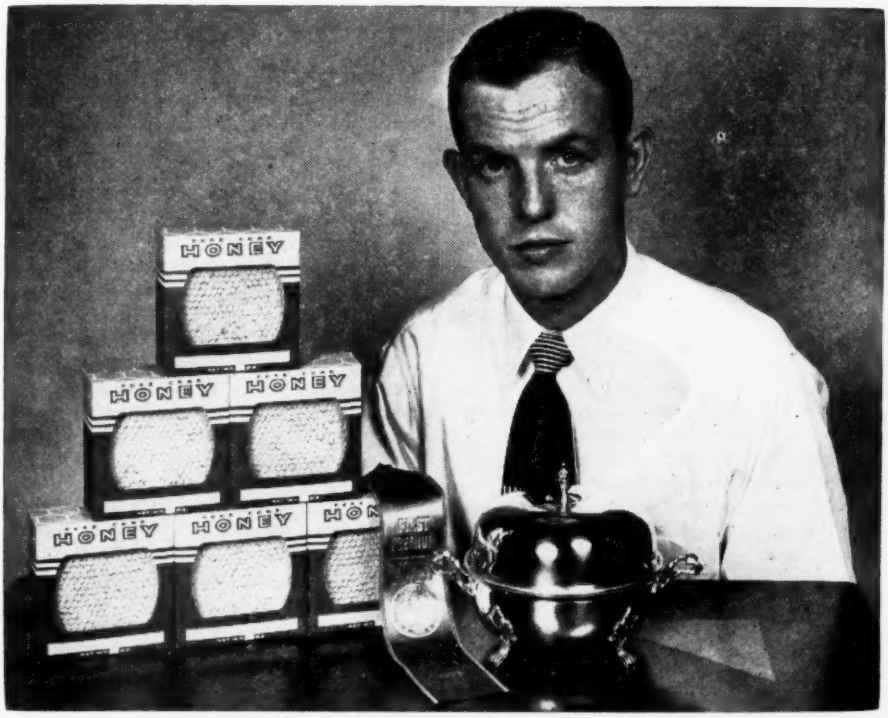




Winner of A. I. Root trophy for the best comb honey displayed at the First National Show was Eugene Killion of Paris, Illinois.

A few of the 2000 colonies of bees now used in Yuma County, Arizona.—Photo from Division of Bee Culture and Biological Control, University of Arizona, Tucson.

No Bees, No Melons

By S. E. McGregor and Frank E. Todd, University of Arizona

"A $15,000,000 MELON crop during 1950 was produced by Arizona growers and shippers."

This was the lead sentence in an article "Arizona Melons" in a 1951 issue of Progressive Agriculture In Arizona, which showed graphically the various links in the chain of producing this crop of melons. One of these links was listed as "pollination by bees," the importance of which was proved in an experiment in 1950 on the Leo Smith farm west of Phoenix.

Cages large enough to cover 40 full-grown cantaloup plants each were set over the plants when the first blossoms appeared. A colony of honey bees was placed in each cage of one group, and from other cages bees were excluded. Open plots, of the same area covered by a cage, were staked off for comparative study. From another group of cages, bees were excluded the first three weeks of flowering; then a colony of bees was placed in each.

Bees Get Results

Results were clear-cut. The cages having bees continuously produced marketable melons at the rate of 272 crates per acre, the cages without bees only seven!

The open plots produced at the rate of 213 crates per acre, an indication that they did not get sufficient bee pollination. There were three colonies of bees within 100 yards of the plots, but there were many acres of melons surrounding them. Apparently the bees available were unable to pollinate adequately all the flowers in the area.

The cages from which bees were excluded the first half of the flowering period produced as many melons, 274 crates per acre, but none set before bees were added. There was no "crown set."

First Flowers Best

The experiment showed conclusively that the nearer the crown of the plant the melon was produced, the sweeter it was. This means that to get the best melons the grower should have ample bees available when the first flowers appear.

By counting the seeds in the melons from these different treatments it was

(Continued on page 759)

Return to Europe

By R. B. Willson, New York City, N. Y.

Part II

(Continued from November)

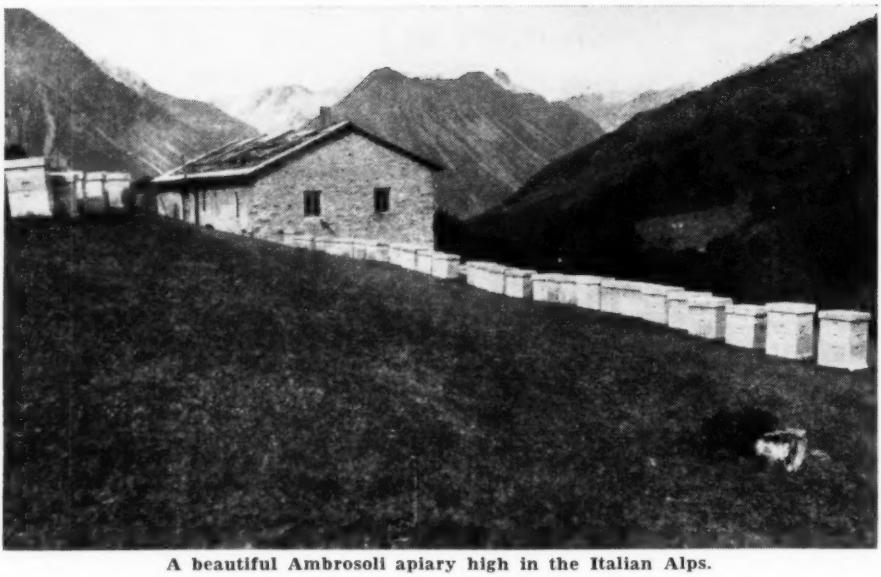
TWO HOURS east from Amsterdam via the British Overseas Airways is Hamburg, 100 miles up the Elbe River from the North Sea, a city for twelve centuries truly famous both in the history and the commerce of Europe. As the swift and comfortable plane approaches that city, which was more than sixty per cent destroyed in World War II, my thoughts are filled with the impressive fact that of the 32 million pounds of honey that we in the United States exported from April 1st, 1952 to March 31st, 1953, more than three quarters went to Germany. How could a nation prostrate in 1946 and temporarily reduced to two thirds its former size be the first buyer of our honey? We were met at the airport by Heinrich and Walter Dittmers, leading importers of honey, with roses and flashlight bulbs, and were soon to learn the answer to that question.

The Germans really like honey and use it freely on the table and in baking, especially in Christmas goods such as lebkuchen and pfeffernuss. They keep many bees in small apiaries all over the country, but get only small yields of honey per colony. The total crop is far less than their requirements so to supplement it, they import it.

There was tight Allied control over Germany from 1946 to 1950, but since, controls have been gradually removed until Germany is now virtually an autonomous state. Her currency, uncertain in value on my last visit in 1949, has since become as sound as our dollar or the Swiss franc, and so we have to ask ourselves, Why? The answer is everywhere apparent. From their rebuilt cities to their fine roads, from their efficient railroads to their well-stocked stores, and from their manifest hustle and bustle to their dogged determination to get ahead, the answer is: **the German people love to work and they know how to work.** The accent is on WORK that everyone seems cheerfully to enter in on. There is no talk of free toupes or free dentistry or more pay for fewer hours of work. It is inconceivable to think that any power on earth will hold the Germans back and it is comforting to know that all is being done 100 per cent under the free enterprise system with workers more and more sharing in the profits, a leaf from our own American book.

The author and his wife in Capri.

GERMANY IS NOT self-sufficient—it never has been. It must import and so it must export. And these processes it has been carrying on since the War even with the handicaps of controlled convertibility of their money and government licensing of imports. It seems inconsistent with their usual sound thinking that most of the honey they bought from us from the 1952 crop was on what is known as switch deals. One was with Yugoslavia and another with Indonesia, wherein



A beautiful Ambrosoli apiary high in the Italian Alps.

these countries put up the dollars for Deutche marks and they with the German intermediaries made a profit of about 20 per cent on honey that they never saw, but which went directly to the German importers. This is a function that banks perform under free convertibility of exchange for not more than one-fourth of one per cent. It is safe to predict that the amount of American honey they will buy when they are permitted to trade without restraint will be very large and an important support to the future of our domestic market.

Jolly German entertaining did not crowd out an awareness of the staggering taxes these people have placed on themselves. Reconstruction is in the air, visible daily growth to their return to power is the modern European miracle. From our point of view I think it typical that Mr. Albert Claussen of Reinfeld, with no honey business left in 1948, has built back his business, all sales and deliveries by mail, to 1,500,000 pounds, all in two and four kilo lithographed tins (about 4.4 and 8.8 pounds). I believe there's nothing to equal such a mail order business in our country.

In passing towards the south I wish to report the solid good our export subsidy program has done all over Europe, including Switzerland, where good substantial quantities of our honey have gone in the past few years. Some of our "hard to sell" varieties at home were really preferred there to such as clover and orange blossom. To a lesser extent this is true of Austria which has not as yet much freedom of operation in international trade.

IT WAS ITALY once again that furnished the great thrill. I wish everyone in the honey business here at home could go to Italy. One cannot enter the country without being conscious of her having given us our basic law and having nurtured Christianity to its everlasting strength. And then when we realize the part the Italians have had in the breeding of bees, the place of preeminence it has for centuries given to honey in its confectionery, and the distinguished position given to beekeeping when at the peak of her ancient civilization, Virgil, her greatest poet, devoted one whole book of his Georgics to the culture of bees, then those of us who love this industry of ours choke up and go about Italy in awe.

Two weeks here was largely vacationing, visiting Venice, Rome, Naples, Pompeii, Sorrento, Capri, and back north to Florence, Milan, and Genoa. Other than to report the solid improvement of conditions in Italy over 1949,

The Ambrosoli home apiary in Ronago (Como) close to the Alps and very cold in winter.

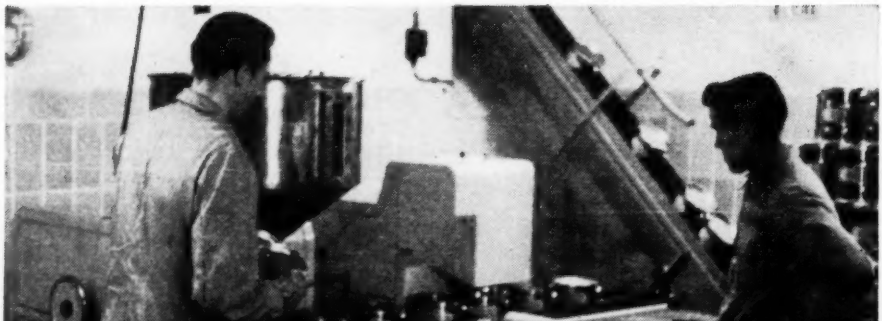
I'd like to record that just as my eyes popped to see tractors for the first time on German farms, I was wide-eyed in Italy to see crop rotation all over the land with alfalfa the most common legume in use.

The Ambrosolis of Ronago (Como) are still doing **the** honey business in Italy. Young Paolo and his bride of three years, whom we had entertained in New York on their honeymoon, were most gracious and showed us much of the Italian Riviera, a long stretch of the Mediterranean Coast, dotted with picturesque cities and villages, that is sheer joy to visit. He revealed to us that the handsome young man in Milan who impressed us so with his gentlemanly manner and serious intent to succeed in representing us in the honey business, Signor Carlo Gropallo, was in fact a marquesa, one step above a count in rank of nobility. Need we say we are proud of our new associate!

WE STOPPED by at Monte Carlo, in the tiny Principality of Monaco, on the way up to France, for there lives one of our very few women customers. Last year we had an order for 50 tons from Madame Jeanne Fontana and we wanted to meet her and express to her personally our thanks. She proved to be a keen, handsome, and smartly tailored lady of great charm, and a trader in honey when licensing and financial arrangements permit.

We looked forward to getting on into France and to Avignon, the ancient city that was the home of the Popes in the 14th century. In this modern age, at least to us, it is the home of the Alphanderys, as well known in France as the Roots are in America. Manufacturers of bee supplies and packers of honey, they also publish the leading French bee journal, Gazette Apicole, and have their place of operation in and about an old chateau in suburban Montfavet. They are two brothers, and gentlemen of great charm and scholarliness, proud devotees of apiculture and champions of honey, especially the honey from lavender and marjoram, the principal honey plants for their bees in the Alps, about 100 miles away.

There's something peculiarly binding amongst us all who are in the honey business. Whether we be in Chile or Canada, in Mexico or Italy, in Cuba or France, there is a common comradeship through honey and the honey bee. Nowhere was it more pro-



Albert Claussen's filling room in his packing plant at Post Rein Feld (Holstein). Note automatic filler, sealer and conveyor.

nounced than with the Alphanderys, who met us at the train, entertained us royally at home with a lavish luncheon in the grand French manner, and with a long trip about the enormously interesting countryside, including a visit to the very old city of Nimes. One's life is enriched by their friendship and we feel proud to know them and of the fine work they keep doing for apiculture in France.

It was soon time to start home after five days in Paris, laying plans for business that we hoped would someday materialize, but enjoying anyhow this queen of the cities of the world. It was like a bit of getting home to board the Ile de France again and it was once more the greatest of thrills to get up early on August 4th and see Miss Liberty out there in New York harbor.

The Middlesex County (Mass.) Beekeepers' Association is an enthusiastic group led by their very capable Secretary John H. Furber.

Trends in Honey Packing Plants, Equipment, and Methods

By Dr. E. J. Dyce, Cornell University, Ithaca, N. Y.

Part III

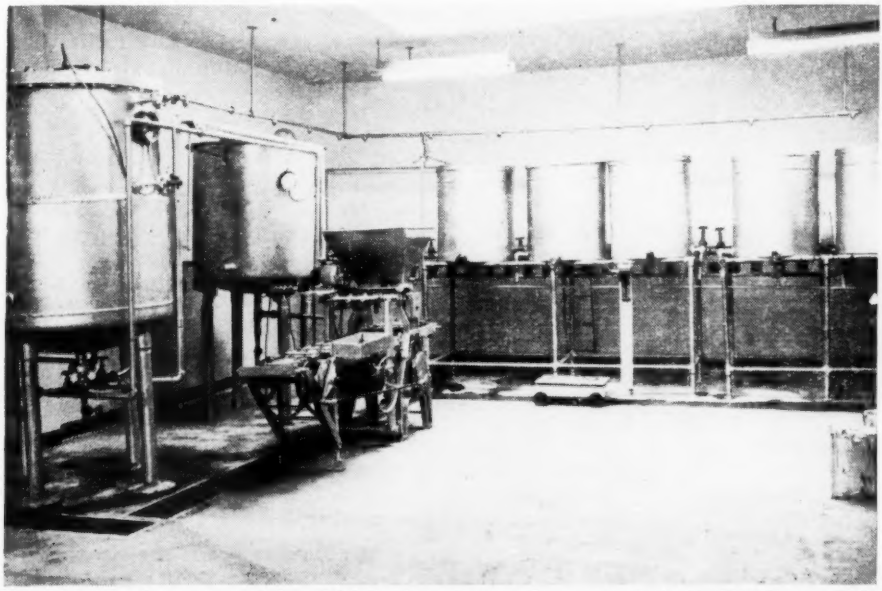
(Continued from November)

RESEARCH WORK at this Department during recent years has brought to light many interesting and practical facts about honey. Most of this work has been financed from royalties obtained from the Dyce Process Honey Patent. It is our sincere desire to turn this money back into basic research work on honey in the hope that it will eventually benefit the entire beekeeping industry. This was my original wish when I donated the patent to Cornell University several years ago.

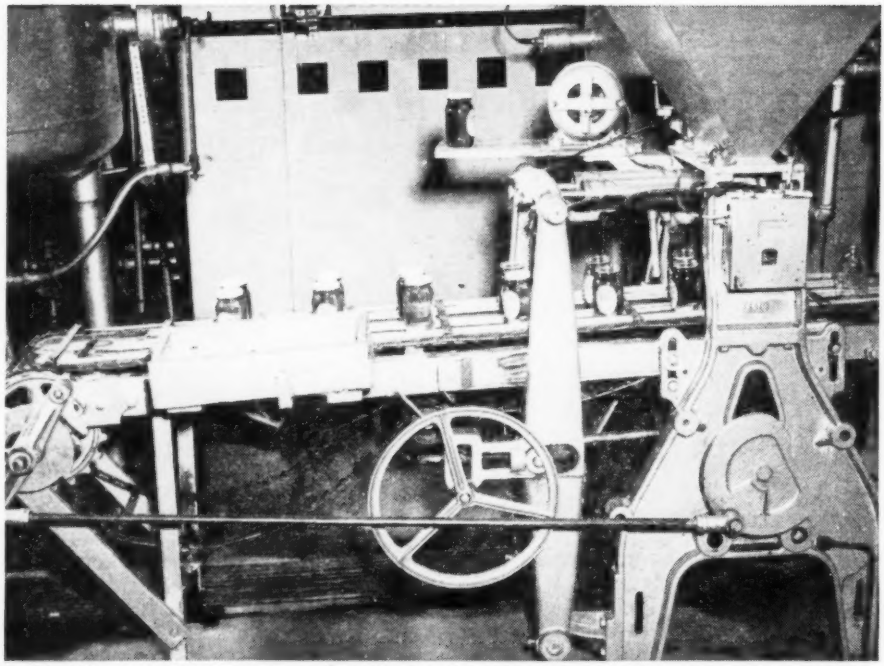
Much of the discussion which follows is based on the work of Dr. C. A. Jamieson, Dominion Apiarist of Canada, who recently completed his Doctor's thesis at Cornell on the problems involved in delaying crystallization in liquid honey.

To retard crystallization we used to say that straining honey is just as important as heating it. It now appears that heating honey to temperatures preferably above 160°F. is far more important than thoroughly straining it. The extra few degrees above the temperature to which honey is normally heated appears to have a marked affect on destroying nuclei which stimulate crystal formation. We know that dextrose hydrate crystals act as nuclei, but it appears there are other particles floating in the air which also act as nuclei in a similar manner, some of which are probably minute dextrose crystals.

We are well aware that when a lid of any jar in a batch of honey is removed, after the honey has cooled to room temperature, that the honey in that jar will invariably crystallize more quickly than the others. We strongly suspect that nuclei floating in the air enter the jar of honey and cause this condition. All honeys doubtless contain at least some nuclei but when



Honey processing room of the Prairie View Honey Company, Detroit, Michigan. This plant is owned and operated by Mr. Al Tennenhouse.



Bottle filling machine used successfully by the Prairie View Honey Co., Detroit, Mich.

honeys are heated to at least 160°F. most of these nuclei are destroyed and premature crystallization is eliminated. On the other hand, when nuclei enter cold honey they are not destroyed and are capable of causing rapid crystallization.

It was found that when honey was packed in dust-free washed bottles it remained liquid much longer than honey packed in bottles which are exposed to the air and not washed. These findings all point to the importance of using a closed system for packing honey, especially after the honey has received its final heat treatment. In other words, we must think in terms of preventing honey from being exposed to the air between the time it is heated to the final temperature and the time it is sealed in the final containers.

It is also common knowledge that honeys which contain a large number of small air bubbles normally crystallize more quickly than honeys which are free of air. These air bubbles unquestionably contain many nuclei capable of stimulating crystal formation. We are of the opinion that these nuclei are at least partially insulated in the air bubbles and many of them survive the final heat treatment normally given to honeys.

Experiments indicate that cooling honey even to 90°F., under controlled conditions, has no significant effect in stimulating crystallization. There seems to be no reason for not cooling honey to a safe temperature after it is pasteurized and strained, providing of course a closed system is used to exclude all air-borne particles. This practice will definitely reduce heat damage to honey. It will also permit heating the honey to temperatures above 160°F., to destroy more nuclei, without overheating the honey. It should be emphasized that it is temperature times time that causes injury to honey. There should be no objection to heating honeys above the temperature normally used to pack honey providing that it is cooled immediately.

Some people think that if honey is packed hot a vacuum is created in the jars causing the air bubbles to rise to the surface, thus retarding crystallization. There is no sound basis for this supposition. In the first place, few lids of honey jars are tight enough to form

and hold a vacuum. In the second place, air bubbles which rise to the surface contain nuclei which are just as capable of stimulating crystal growth near the top as elsewhere in the honey. The advantages of cooling honey before it is packed in containers definitely appears to outweigh any advantages which might occur from packing honey hot. It must be emphasized, however, that a closed system is absolutely necessary.

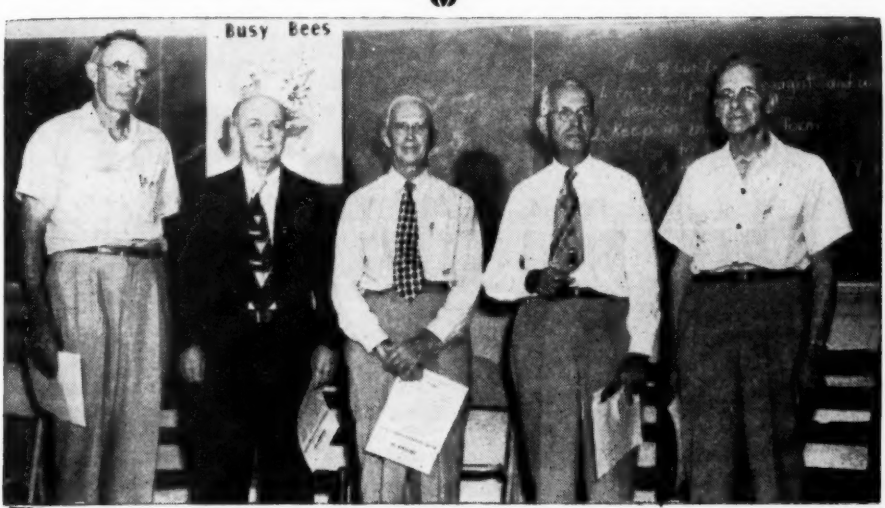
It is well known that honeys, such as sage and tupelo, which are high in levulose, remain liquid much longer than ordinary honeys. The inclusion of honey in blends which are relatively high in levulose retards crystallization roughly in proportion to the amount they are added. For the granulated or crystallized pack the reverse is true. Honeys which are relatively high in dextrose crystallize more quickly and tend to remain firmer, longer at high room temperatures.

Honeys which are low in water content tend to crystallize more rapidly than those which are high in water content. In fact, it is difficult to crystallize a honey with a moisture content in excess of 20 percent. In the preparation of liquid honey for market, crystallization could be delayed significantly by using a blend of honeys which theoretically would have a final reading of 18.6 per cent moisture. This is the maximum amount of water permitted in a U.S. Grade A. or U.S. Fancy Honey. In practice extreme care would have to be taken to pack a blend of honey with less than 18.6 per cent moisture. This would avoid the risk of the honey being placed in a lower grade.

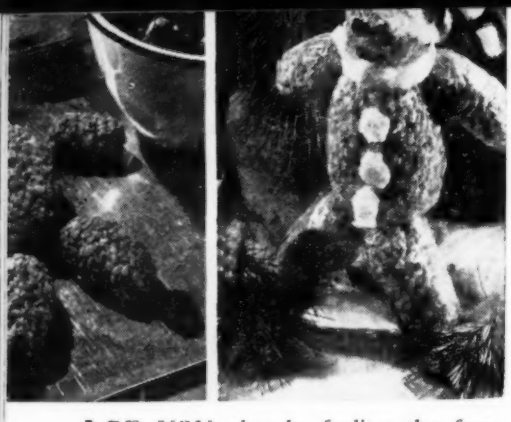
In packing finely granulated or creamed honey for market it has been found from practical experience that it is desirable to blend honeys to a moisture content of about 17.5 per cent for the summer trade and a moisture content of about 18 per cent for the winter trade.

Honey bees in their role of pollination are extremely important to our national economy. We have emphasized this fact so much during recent years that we are inclined to overlook the fact that our main income still is derived from the sale of honey. It is therefore very important that we continue to take advantage of new equipment and methods which will reduce costs and at the same time improve the quality of our product.

Footnote to Part II:—Copper reacts with honey but recent investigations indicate that it might not be as injurious to honey as we have been led to believe. Honey acts on galvanize and eventually exposes the iron. Iron quickly reacts with honey. It not only darkens it but gives the honey a metallic taste.



Left to right: W. T. Kelley, R. L. Sloan, G. H. Rea, G. H. Cale, M. J. Deyell.—Photo taken at the summer meeting of the North Carolina Beekeepers' Association in Boone, No. Car.



Holiday Sweets from the Honey Jar

Mrs. Benj. Nielsen
Aurora, Nebraska

Candy Santa Claus for tree or small fry gifts.

ARE YOU already feeling the forerunners of the holiday rush, wondering how you are ever going to get everything done and decide just what to get for that "hard-to-choose-for" person who has just about everything? Then let honey solve some of your time and gift problems. Because of its fresh keeping and delightfully mellow aging properties honey-way goodies are best made ahead of the rush of last minute activities.

One of the all-time favorites at the Nielsen house is the smooth creamy honey pecan roll, made way ahead of time, stored and sliced as needed. One of these rolls bedecked in bright foil and gala ribbon makes an ideal gift.

Honey Pecan Roll

One cup light brown sugar, 2 cups granulated sugar, ⅓ cup honey, and 1 cup evaporated milk.

Mix ingredients in saucepan, cook s'owly, stirring occasionally to 236 degrees F., or until a few drops form a soft ball when dropped into cold water. Remove from heat. Cool at room temperature, without stirring, until lukewarm, or until the hand can be held comfortably on the bottom of the pan. Then beat until candy holds its shape. Turn on board dusted with ½ cup powdered sugar. Knead until firm. Shape into long roll, about two inches in diameter and 16 inches long. Cover outside with 1½ cups broken pecans. Wrap in waxed paper and put in cool place to harden, then cut into one-half-inch slices with sharp knife.

Candy Church

One and ½ cups sugar, 1½ cups honey, ¾ teaspoon salt, 1 tablespoon vinegar, 3¾ quarts (15 cups) oven-popped rice cereal.

Combine sugar and honey in medium sized saucepan. Cook over low heat to 250 degrees F., (hard ball in co'd water) stirring only enough to prevent scorching. Remove from heat; stir in salt and vinegar. Measure rice cereal into a buttered large bowl. Pour on syrup, stirring until cereal is well coated. Cool slightly. Divide mixture in half and press into two buttered large shallow pans (10 x 15 inches). Cut the sides and ends of the church in single pieces. Cut out windows and doors as indicated. Cut steeple, entrance, steps and blocks for fence from remaining candy. Put together, using red cardboard for the roof. Spread roof with thin confectioners' icing to represent snow and ice. The outside measurement of the church is 9 x 6 inches at the base, 8½ inches from base to peak of roof and 14 inches from base to top of steeple.

The above recipe will make three Santas about 10 inches tall. When mixture is cool enough to handle, shape mixture into "arms", "legs", "head", and "body". Wrap the various parts in cellophane and twist ends. Tie at wrists with string and then tie head to body, arms to neck, and so on. Use bits of date for face, crepe paper for hat and cotton to decorate hat and for buttons.

Honey Toffee

One-half cup brown sugar, ½ cup granulated sugar, ¼ cup honey, ½ cup evaporated milk, 1 tablespoon butter, and ¼ teaspoon salt.

Mix in saucepan. Boil slowly stirring constantly until sugar dissolves. Continue cooking, stirring occasionally, to 250 degrees F., or until a few drops form a hard ball when dropped into cold water. Add 1 teaspoon vanilla and ½ cup chopped nuts. Put into greased pan eight inches square. Cut into strips when cool.

Live and Learn

By Propolis Pete

JUST GOT BACK from a trip into the country where they produce comb honey as a matter of course, with none of the struggles and planning that goes on around here. When the flowers bloom in the spring they put on their supers, and when the supers are filled, they take them off, —just like that. One chap I talked to was bewailing the fact that it was an off year. His best colony gave him only about a hundred salable sections.

Of course, it wasn't all gravy. They thought 50c a section, retail, was a good price. Around here we are averaging 75 cents, that is of course, the lucky ones who got some section honey. But a hundred sections at 50c is $50.00 and twenty at 75 cents is $15.00. If we got crops like that, maybe we wouldn't get the prices either, but I would swap $15.00 for $50.00 any day.

I fairly drooled when I saw the pasturage. Nothing was blooming of course, but you could still see the seed heads of the goldenrod and asters. Thick doesn't describe it. I bought a section of the goldenrod, to see what it was like, because I never take it from my own bees. That's their winter feed. There wasn't any question about the floral source. It had that same flavor that smells so bad when it comes out of the hive, but modified to the point that actually it tasted good. Maybe that's sort of jumbled up, but that's how it is.

My final score for the year was an average of 35 pounds of extracted per colony. That is about the lowest I have ever been, but when I read the market reports from all over the country, maybe I'm not doing so badly after all. As usual, I am sold out, and could have sold a lot more if I had it. I did things a bit differently this year. Because of sickness in the family, I didn't want to dish it out of the kitchen door. Too much confusion, and callers at a time when I would not have been able to give them any attention. It's great to sell honey that way when you are able, but it sometimes takes a lot of time when you get a windy customer. A lot of mine want an hour's lecture with every pound of honey. It's fun if you are able, but a darned nuisance when a nice thick steak is waiting on the table. That actually happened once when we were celebrating a birthday. I got mine, too, from the better half, for keeping dinner waiting.

ANYWAY, THIS year I made arrangements with a couple of friends who have roadside stands to sell it for me. It went so fast that again I made bad friends because I couldn't give them all they wanted. A couple who didn't get any at all are mad because I "discriminated" against them. So I had to promise that next year I would remember them.

It seems to me that the demand for honey is increasing. I don't mean that more people are coming to me as I get better known. I mean that more people are using honey, and come straight to headquarters because they think they can get better honey that way. There is still a lot of education to be done about the pure food laws, because an awful lot of people still think that store boughten honey is spiked with sugar syrup. A peculiar sideline on that subject is that they are afraid of it because it is so clear and bright. When they see how nice and clear mine is, they are delighted at its purity, but when the store honey looks as good or better, they suspect its integrity. So don't get the idea that a sloppy job of packing will get by. It won't. What the people want is a nice, bright, clean tasty honey in an attractive bottle. It's just that they suspect the "factory" product because it does not come direct from the bee. I think that the increase in demand is due to the work done by the American Honey Institute, and the propaganda being spread by the government Department of Agriculture. More power to them.

There are so many ways for the little beekeeper to dispose of his crop. It's perfectly true that there are some sections of the country where the production is bigger than the local demand, but a little ingenuity will bring

(Continued on page 759)

XUM

Editorials

Honey Price Support
Now is the Time to Tell Washington

IT IS APPARENT that in general the farmer favors some form of price support for his products, and while most of us in this industry like to feel that we should stand on our own feet, we find that the sentiment persists that honey support prices have been helpful to the industry without being tremendously expensive to our government.

Assuming that producers in general favor honey price supports, how high should supports be? They started out at 65 per cent of parity three years ago, then were raised to 70 per cent of parity. At the national meeting, held in San Jose, California, the Federation went on record as favoring 70 per cent of parity price support. When parity was refigured, the price support of honey was reduced almost one cent.

How high should the support price of honey be this coming year? Will 70 per cent of parity mean a further reduction in the support price? We believe that most producers would not wish to see it any lower and many feel that it should be somewhat higher. Some states have gone on record as favoring 90 per cent of parity support, which would be somewhere in the neighborhood of 15 cents on present parity. In our opinion, the honey price should be supported just under the point where the government will be forced to take in an appreciable amount of honey.

When the government has to buy an excessive amount of any product, then we begin to run into a situation such as faced the government a few years back with the potato crop. When this happens the support program breaks down. It is our opinion that the honey price could be slightly higher than where it now stands because of the shorter crop this year.

It seems to us that the industry should request a support price based on cents per pound rather than a percentage of parity, for this percentage seems to fluctuate without too much regard to general conditions. A request of 70 percent this year might end up in a further reduction in the support price of honey. A request of 90 per cent of parity might make our government the sole buyer of honey and take it away from the regular channels of trade long enough that it could do irreparable damage to the industry.

If the honey support price can be kept just below where the government has to acquire a considerable portion of the crop, it has the effect of stabilizing the industry by enabling a producer to obtain a loan on his honey until such time as he can move it at the market price. It prevents distress lots of honey in those areas far away from the market from being purchased by someone and then thrown into an otherwise stable market and disrupting that market price-wise.

The real long-term answer to all this is in organizing our industry to support the American Honey Institute and the American Beekeepers' Federation with money. If we do this, the activities of the Institute and the Marketing Committee of the Federation can put honey where it should rightfully be—on the table in every American home.

In the meantime, we still need more time. Support prices seem at least one answer.

•

Bird'sfoot Trefoil In the not too distant future bird's-foot trefoil acreage will equal or exceed alfalfa in New York State, which is already true in Essex County, reported Ray Bender, Essex County New York), agricultural agent.

Early attempts to get good stands of bird'sfoot were mostly failures. With more knowledge of the plant's habit and practical field experience, plantings can now be made with a fairly high degree of success, he noted.

To obtain a good bird'sfoot trefoil seeding, Bender recommended: prepare a firm seed bed free from weeds, use lime if needed and superphosphate, and sow four or five pounds of innoculated seed an acre. Ideally, a nurse crop should not be used, but if one is sown, pasture it off or cut it for hay.

"Dairymen like bird'sfoot trefoil because it makes excellent pasture during the dry summer months or it can be used for hay. It can be cut a little later than other legumes and still be high quality. Bird'sfoot is adaptable to different soil conditions. If given an opportunity it will reseed itself, and once heaved out by frost it will grow a new crown, which is unique for a legume plant."

Bender added that bird'sfoot can be pastured without causing any alarm about cattle bloat.

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Some Bees May be Short on Stores Because of drouth conditions that have prevailed over wide areas recently, late summer and fall honey flows which ordinarily occur in some regions failed to materialize. This resulted in a short fall crop and in some instances a shortage of winter stores. It is hoped that beekeepers have fed their bees to make up any food deficiencies. In any event, if ample feeding has not been done it will be necessary to inspect colonies early next spring to save them from possible starvation.

●

Honey Not Plentiful From reports recently received at this office, it would appear that the supply of good table honey is not plentiful. At the beginning of the season, prospects were favorable for a good crop. However, just prior to and during the time surplus honey was stored, very unfavorable conditions for nectar secretion occurred. This reduced the crop rather drastically, especially in some sections of the country where the drouth prevailed.

This shortage of honey is likely to prove rather bad for the industry because people who have become accustomed to using honey, not being able to purchase more, may turn to some other sweet and perhaps not return to the use of honey, even when it is again available. With the splendid publicity honey is receiving at present, the demand is likely to increase each year. It would indeed be regrettable to have a shortage of honey, especially following the special drive by the American Honey Institute and the P.M.A. to increase honey consumption.

●

More Honey Publicity "Smart Cooks Use Honey", says an article in the October 1953 issue of BETTER HOMES AND GARDENS. The editors used four photographs to illustrate the methods of preparing whipped honey butter, honey-nut salad dressing, honey marguerites, and the beehive special. The article was supplemented by a number of honey tricks to help the housewife get the most out of honey.

We undoubtedly have Mrs. Harriett Grace of the American Honey Institute to thank for placing this excellent publicity on honey. Many beekeeping groups are giving the Institute good cooperation and are really plugging honey. While the groups are too numerous to mention, the following are doing an outstanding job: the state associations of Texas, California, and Colorado, and the Middlesex County Beekeepers' Association of Massachusetts. Many more associations are to be commended for their activities in promoting honey during the last week in October, but space limits their mention here.

The November issue of THE NATIONAL GEOGRAPHIC MAGAZINE had a small feature on honey bees, and as you know, every mention is more free advertising. Lonnelle Aikman in her article "Mount Vernon Lives On", describes the role that honey bees played on the old estate of George Washington. A photo shows a hive being examined—it is a modern frame hive concealed beneath a skep.

In describing Mt. Vernon as it is today, author Aikman says, "The estate has it's own cattle, sheep, horses, dogs, and a beehouse producing honey. The beehives, incidentally, are a striking example of reconciling old and new. Under the rounded straw facsimilies of old-fashioned hives are standard removable-frame units required today."

XUM

American Honey Institute News Notes

By Harriett M. Grace, Director

PACKARD AUTOMOBILES reached the zenith of promotion several years ago when they came up with the slogan, "Ask the man who owns one".

Let's re-phrase it this way for honey users: **Ask the man whose bees make it.** For he should know, if anyone does, how good honey is and can be if handled by a competent cook with a trustworthy recipe.

Beekeepers have somewhat assigned this task of telling folks about the goodness of honey to the American Honey Institute. But this does not relieve him of the responsibility of using his own product. Fact of the matter is, how can he expect others to buy honey if he himself neglects to include it in his daily meals!

So a honey user he must be. And a honey expert he must be. How embarrassing to be faced with a tactical question asked by a potential customer about some aspect of honey cooking and not know the answer! No beekeeper should ever be in this humiliating position. **Use your own honey and know what you are selling.**

That honey fruit cake must be made now, right away. The Institute has a honey fruit cake recipe that is a dream to make, but which should be aged from two to four weeks before cutting. Although most homemakers have their favorite fruit cake recipe passed down through generations of a family, if you, a beekeeper, don't have one using honey, you'd better discard the old one and try this one this year. It makes a seven-pound cake, and we have printed it in a convenient folder form, so you could mail it to your customers. The folder is exactly the right size to fit into your recipe file box. You know, of course, that honey will keep this cake more moist than a fruit cake made without honey. That makes a superb selling point; don't forget to mention it to your friends.

Now, let's not neglect the delicious treat of honey egg nog this year. What would Christmas Eve be without egg nog, and what would egg nog be without honey? See our prize recipe on page 12 of New Favorite Honey Recipes.

MAKE THAT holiday ham extra dazzling this year by basting it often with honey mixed with a little brown sugar. Try this trick on the sweet potatoes too; you can turn them into the bright yellow-orange of a harvest moon by glazing them with honey right after they have finished cooking. Some cooks do this with small onions too. Add the honey after the vegetables have finished cooking and be sure to turn them often so they will not scorch.

Honey broiled grapefruit for breakfast is a neat trick especially if you decorate the grapefruit with a red or green cherry to carry out the Christmas theme.

And how about filling the children's stockings with honey candies? You'd be surprised how easy they are to make. Honey taffy, honey peanut brittle, honey nougats, honey glazed nuts, honey popcorn balls tied with red and green cellophane, honey toffee —all recipes you can find in the Old and New Favorite Honey Recipe books you have.

Here are two quick candy recipes that need no cooking:

Honey Peanut Butter Quickies

One-third cup honey, ⅓ cup peanut butter, ½ cup non-fat dry milk. Add honey to peanut butter and mix well. Add non-fat dry milk gradually. Stir well. Shape into a roll and cut in pieces. Chill.

Honey Chocolate Almond Drops

Eight squares (one package) candy-making chocolate, ¼ cup sweetened condensed milk*, ¼ cup honey, ¼ teaspoon salt, ½ teaspoon almond extract blanched almonds.

* For best results have milk at room temperature.

Heat chocolate over boiling water until partly melted. Then remove from boiling water and stir rapidly until entirely melted. Add condensed milk, honey, salt, and flavoring, and stir until well blended. Drop from teaspoon on waxed paper. Place one-half blanched almond in center of each candy. Chill in refrigerator or let stand at room temperature several hours, or until firm.

From North, East, West, and South

NORTHERN CALIFORNIA, Nov. 1

Weather: The month of October has been delightful, as far as comfortable temperatures are concerned, but too dry for pastures and native plants. Strong north winds have decreased soil moisture as well as causing severe loss of alfalfa seed. When strong winds blow over ripened fields of alfalfa, much seed shatters out, especially if the alfalfa has just been cut, in which case, as much as 300 pounds of seed has been lost in some fields.

Condition of Plants: Tar weed and blue curl, two important nectar and pollen plants in the fall, were in good condition but did not yield satisfactory returns of nectar. The lack of soil moisture may also affect the development of manzanita and other plants.

Condition of Colonies: The fall nectar flow was somewhat spotted but generally short of the expected. Consequently, many colonies are going into the winter period lighter than normal. Also, those that were left heavy with stores in late August, have consumed considerable honey in brood rearing without gathering sufficient stores for replacement. The shortage of fall sources made robbing more persistent over a longer period and is a factor in spreading AFB except where beekeepers included sulfa in stores fed for winter. Sulfa stores fed in early fall during a fall dearth of nectar, would tend to clean up any light infection in the brood area and prevent infection from getting started through robbing of diseased colonies.

The Honey Crop: Honey production in California was extremely spotted this year. Colonies used for the pollination of legumes stored only an average of 30 pounds, or less. Very little spring honey was secured in northern and central California, resulting in the consumption of all reserves as well as requiring considerable feeding. The sage and buckwheat flows were practical failures in southern California and the orange blossoms produced only about a 25 percent crop and that generally of inferior quality. One large commercial beekeeper reported that his crop was the poorest in his memory while another reported a better crop than 1946 which was well above average. A beekeeper of 72 years of age reported an average of 120 pounds for several hundred colonies, one of the best in the state.

The Honey Market: Honey buyers have been very active during the past three months and as a result, most of the honey has moved out of the hands of the producer at prices that ranged from 10½ to 12¼ cents, depending on the quality of the honey. Due to the fact that there was no carry-over this past year and that the supply is considerably below average at the present time, the removal of the export subsidy on honey should not have much effect on the wholesale price of honey. Some beekeepers who have secured a good crop this year and are operating on a cash basis for income tax purposes, are holding all or a portion of their honey until after the first of the year.

Miscellaneous: The chief problems of interest to beekeepers in California this winter will be the future of the use of colonies for seed production, what type of hive hoist to have made to aid in migratory beekeeping practices, and the price structure for honey next year. —J. E. Eckert, University of California, Davis.

* * *

OREGON, Oct. 31

Crop: The honey crop this year was probably a little below the average. This was more than expected owing to the fact that we had a very wet spring and it rained nearly up to the time the honey flow started from vetch.

There was an excessive amount of swarming before the

flow and beekeepers everywhere in this area anticipated a very small crop, if any. It was, indeed, a very pleasant surprise. The fireweed this year produced practically no honey. One large producer stated that the hives were lighter when moving out of the fireweed than when he moved them in and those bees have to be fed winter stores.

Market: Honey is now moving very well and prices have stiffened up. The indications now are that the entire crop will be disposed of and any surplus held over from last year will also be sold. The average price of honey now being sold to the consumer is $1.25 for the five-pound pail; the two pound jar for 65 cents and the one pound jar for 35 cents. Of course, we always have to compete with the low grade honey which sells for about 98 cents for the five-pound pail.

Good beeswax is now selling for 40 cents per pound and at present there is a scarcity. One large buyer here states that their stock is about 30 per cent less than a year ago.

One beekeeper states that he did better financially than in the past by renting his bees for pollination and he could not supply the demand but he predicts that in the future he will not do so well owing to the decline in the price of seeds. These beekeepers should be well paid for their labor because it is no fun to move bees besides the chances he takes in getting foul brood from other colonies moved into the same territory.

Miscellaneous: The honey exhibit at the Oregon State Fair was much better than usual and two commercial beekeepers tied for sweepstakes. There were no farm exhibits at the Pacific International Livestock Show as in years past.

Plans are now being made for the Washington Beekeepers' Association and the Oregon Beekeepers' Association to hold a joint meeting this year here in Portland. We had a joint meeting in Vancouver, Washington, a few years ago which proved very satisfactory and we are glad to meet and work with them.

Be sure your bees go into winter quarters with plenty of honey and pollen. About 60 pounds in this area. What a grand and glorious feeling it will be this winter when its cold outside for one to be in his comfortable home with plenty of food and know that his bees are also comfortable.

The bee school held by the Portland Beekeepers' Association proved a grand success. There are requests for the school to continue again next year, however, no decision will be made until our next meeting which will be held in November. This year's school ended with a picnic held at the home of the Up and Up Apiary here in Portland.

At this picnic we had a very pleasant surprise in having Mr. M. J. Deyell, Editor of this magazine with us. He made a very interesting talk about beekeeping and getting stuck in the mud.— John F. Erickson, Portland, Oregon.

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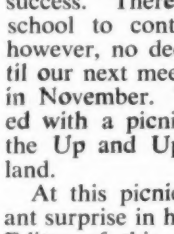
NEBRASKA, November 4



Weather: Dry and unseasonably warm, following a hot and very dry summer, sums up the weather situation. Temperatures in the 90's day after day in October are indeed unusual. Widely scattered, spotty showers late in October were most welcome but far from adequate.

Honey Crop: Reports indicate poor to fair honey yields this year. This is the second time during the writer's 34 years of beekeeping that there has been no fall smartweed honey flow. Smartweed, or heartsease, which has a deep pink bloom, is the main source of the fall honey flow. This plant grows in the ditches and low spots. When this source fails it is dry! Bees usually are wintered on this dark strong-flavored fall flow, so this lack has further reduced the crop of light sweet clover and alfalfa honey producers could safely take from the bees.

Condition of Honey Plants: The condition of nectar-bearing plants is a matter of grave concern. This season started with a subsoil moisture deficiency, add a dry summer, plus a dearth of fall rains, and it does not make an encouraging picture.

Honey and Beeswax Prices: Honey prices have advanced in chain stores, from 89 cents to 98 cents for a five pound jar. Beeswax is in slow demand at reduced prices.

Miscellaneous: Recently we have been viewing on television a most vivacious homemaker who features honey frequently in her recipes, actually preparing and baking or cooking the food on her 30-minute programs. Though all recipes are given as she goes along, all recipes are available in printed form simply by requesting them and sending a stamped, self-addressed envelope. She features Gold Crest clover honey which is packaged in a most novel container. It is a plastic "squeeze-me" bottle which dispenses the honey when inverted and squeezed, but stops immediately when pressure is released, leaving no sticky drip as do the so called drip-cut dispensers most commonly in use.

Tying in with National Honey Week, designated as the last week in October, Nebraska's Walstrom and Puppe, honey producers, were shown on television presenting our Governor Crosby with a large jar of honey. A noted wrestler outlining a very full itinerary volunteered the fact that he used honey for quick energy. And Arthur Godfrey got so engrossed in telling about honey week and the habits of bees that he forgot to mention his sponsor and gave his commercial during a 15-minute period.—Benj. Nielsen, Aurora, Neb.

* * *

TEXAS, November 5

Weather: The temperature during most of October was well above normal while little rainfall of any consequence occurred. However, the latter part of the month brought rapid change of the weather with cooler temperature and general rainfall at frequent intervals covering all sections of the State. Surface and underground water supply is gradually approaching normal and more favorable than at any time in more than three years.

Bees, Plants, and Honey Crop: Fall flowers in great variety followed late summer rainfall and bloomed profusely over a long period over most sections of the state. While some failed to yield as expected, others yielded freely and bees obtained good supplies of both nectar and pollen. Reserve stores and bee forces are now more abundant than in several years. New colonies formed from late increase are nearly equal to old established colonies. North and Northeast Texas had a top crop from cotton such as has not occurred in some years. This helped the total honey crop from cotton to partly offset the short crop from sweet clover. In Central Texas, also, a late flow from cotton boosted the total yield. In the irrigated district of the South Plains the honey crop from sweet clover and cotton was well above average with some reporting over 150 pounds. Most sections during the current year obtained a yield at least above that of the two preceding years. With good averages reported from the Blackland Area and high yield reported from the Plains it appears that the total production for Texas during the current year is about normal.

Market: Recent weeks have shown increased consumer demand for honey and the market in general has improved. Grocers are buying in quantity to keep up their stock. Except where honey is offered as a week-end special prices remain steady. Comb honey remains in short supply. Some small scale producer-bottlers report their own stock running low and are looking to their neighbor producers for further supply.

Miscellaneous: The Texas State Fair at Dallas ended October 25. More than two million visitors passed through the gates which established a new record for attendance. The bee and honey exhibits were especially attractive and more elaborate than in previous years. As usual, live bees aroused curiosity and attention; however, the honey exhibits had real eye-appeal. It would be hard to conceive a more impressive way of bringing honey to the eyes of the public than through exhibition at a large fair.

During the last week of October "National Honey Week" was observed

in many of the larger cities adjacent to the major producing areas of Texas. Honey was featured with attractive displays and advertising posters, and placed as a week-end special in major food stores. Local newspapers carried stories of bees and honey. Bottlers, local associations, and individual beekeepers all did a good job in bringing honey to public attention especially with food shoppers. Local grocers and newspaper editors were most helpful.

The Texas Beekeepers' Association held its annual meeting at College Station on October 26 and 27. The meeting was well attended and a well-balanced program presented.

The officers elected for the coming year are: T. E. Burleson, Waxahachie, president; E. E. Youngblood, Pearsall, vice-president; F. L. Thomas, College Station, secretary-treasurer. Mr. D. C. Babcock, San Antonio, was elected Member-at-Large to the Executive Committee. The Ladies Auxiliary elected Mrs. Charles Engle, Jr., president; Mrs. R. A. Moeller, sec.-treas. —A. H. Alex, College Station, Texas.

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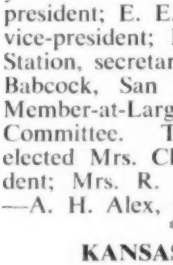
KANSAS, November 7



Weather: Kansas has had a second hot, dry summer with rains occurring only at lengthy intervals. June, July, and August were extremely hot and dry. There were a few rains in June which were able to keep plants in a growing condition.

At the present date, November 6 and 7, a snow storm is sweeping across Kansas, depositing about an inch of moisture. The rains that came in October revitalized the clovers and bluegrass. The current snow will be of much benefit to crops since it will all move into the soil and not run off.

Colony Conditions: During the past season many farmer colonies were not given much care and the result has been a decrease in colonies due to insufficient stores of the previous year and weak colonies. From the middle to the end of the past growing season the wax moth has destroyed many combs.

Some beekeepers migrated from the southeastern part of Kansas to North Central Kansas to obtain honey crops. The colonies of commercial beekeepers will in many instances in Southeast Kansas need to be fed to be active next season. The weather has been favorable this fall for preparation of colonies for wintering.

The Honey Crop: In the central area of Kansas where colonies were at good strength, beekeepers obtained a good crop from the sweet clovers and later in August obtained a considerable amount of alfalfa honey. This was due to the fact that the price of alfalfa seed was depressed in 1952 and many farmers produced less seed this year and more hay.

In the Manhattan area there was an intermittent nectar flow from alfalfa all through August from staggered cuttings of alfalfa fields in the vicinity.

The best crop production was in North Central Kansas because of the good timely rains that came at the correct times for good nectar secretion. The past season has been the third successive year of extremely low crop production in Southeast Kansas, which is accounted for by the low rainfall.

Market: Section comb honey at a very reasonable price does not sell as rapidly as five-pound pails of extracted honey. The market for extracted honey has been of a steady nature because the honey produced is of good quality and light in color.

Miscellaneous: The Kansas State Beekeepers' Association held its annual meeting in Augusta, Saturday, September 19. A good attendance was present on a hot day. An excellent program was enjoyed by the beekeepers in attendance.

During October the Kansas Agricultural Experiment Station issued "Bee Culture in Kansas", Bulletin 357 and "Relation of Weather Factors to Nectar Flow in Honey Production", Technical Bulletin 74. Copies of these bulletins may be obtained from the Bulletin Room, Kansas Agricultural Experiment Station, Manhattan, Kansas.

The plans and program for the Beekeepers' Program during Kansas State College Farm and Home Week is nearly complete. This program will

be held on Tuesday, February 2, 1954 in Fairchild Hall, Kansas State College, Manhattan.—R. L. Parker, Manhattan, Kansas.

* * *

PENNSYLVANIA, November 7

The dry weather reduced the clover honey flow in Pennsylvania as it has in many other parts of the country. In central Pennsylvania, the surplus has been very short or about 75 per cent of normal. The fall flow from goldenrod and asters was very light also, except in a few areas where local thunder showers helped out at the right time. Many colonies are short of food and are being fed. Starvation is expected to be a problem in the central part of the state next spring.

Bees have a heavier supply of winter food in southern and northern Pennsylvania. Little if any feeding will be needed in these areas. The buckwheat flow was only fair in the northern counties where this crop is grown. The writer has seen a surplus gathered from Devil Club or prickly ash this year for the first time in many years. This plant grows only in the Allegheny plateau and produces a very light honey of bitter flavor. Since the honey is white, it looks very attractive but is nearly as bitter as quinine. If the honey is left standing in 60-pound cans in a dry room for a year or two, it looses its bitter flavor and becomes a honey of relatively fine flavor and quality.

The Pennsylvania State Beekeepers' Association will celebrate its 50th anniversary next year. A number of items are planned for the program that is to be centered around the summer meeting August 20 and 21, 1954. Some of the items to be developed both during the year and at the meeting are: an exhibit of honey, honey products, bee supplies, and beekeeping gadgets, a state wide honey advertising program, a "Honey Queen," and a special presentation having to do with the past, present, and future of beekeeping.

The annual 1954 beekeeping short course will be given during the week of August 16 to 21 and will end with a banquet on Friday the 20th. The students attending will be free to take part in the State meeting Friday afternoon and all day Saturday.

Another big event for our State Association will be plans for a large booth to sell honey and honey products at the Pennsylvania State Farm Show in January, 1955. This is a big enterprise and can mean a lot in the way of advertising to our beekeepers if it proves successful.

The honey market has been good with most large lots of honey already sold. Prices are holding firm or are increasing. Comb honey and light extracted are both scarce for this time of year.—E. J. Anderson, College Station, Pennsylvania.

* * *

TENNESSEE, November 3

Conditions: The long period of extremely dry weather we have experienced for several months here in Tennessee will, without a doubt, have a drastic effect on the early spring honey flow. Many nectar plants of importance have suffered from the dryness and may not survive. In some areas goldenrod and aster yielded sufficient nectar to provide winter stores for colonies while in other locations no noticeable increase could be seen. Colonies that have been deprived of nectar are low in stores and weak in population.

Hundreds of acres of fall seeding of legumes have been retarded and many farmers will not attempt to sow this late in the season. With a mild winter there is a possibility that where seeding of legumes is successful, pasture for the bees will be possible. The estimated acreage of winter cover crops is 30 to 40 per cent less than normal. This means many beekeepers will be forced to move some of their apiaries to areas where nectar plants are within range of the bees in order to produce a crop of honey.

During September and October many colonies stopped brood rearing due to lack of moisture and food sup-

ply. With very little brood at this time and with the population of the colonies mostly old bees which may not survive the winter, we can expect heavy losses. Late fall feeding will help offset this situation. Feeding should be done before freezing weather and colonies examined in early spring to note their condition and feeding should start to increase the population to full strength for the late April honey flow. Help your bees to help you! —L. H. Little, Shelbyville, Tennessee.

* * *

VERMONT, November 1

Weather: Along with most of the East, Vermont has suffered from drought conditions since early June. While a little rain in September and October moistened the ground, subsoil will need lots more rain before next summer's honey season comes around.

Honey Crop: As mentioned before we have had the rare "pleasure" of experiencing the poorest crop we've ever had since I've been here in the Champlain Valley, about a 15 pound average per colony. Prospects in early May never looked better for a good crop. We had some good rains and dandelions yielded very well. With the end of May, the weather man turned off the faucet and the hot dry winds finished the clover blossoms before they hardly had a chance to open. Luckily for us, late clover bloom after the middle of August, helped greatly to fill up brood chambers for winter.

What are prospects for next year? That is a question. First we need lots more rain. In the last eight years we have had five failures and if there is any justice in the Law of Averages, we should be getting that big crop. While dry weather has not helped new clover to get a start this summer, still, there would be enough bloom next year if conditions are right. We hope.

Conditions: Bees are going into winter in good condition and clovers are finding conditions rather poor. Considerable grazing of meadows this summer and fall will no doubt increase winter killing. Hay and pasture of course have been short and not much feed is going to waste around here.

Miscellaneous: This proposed inspection of honey houses by the Federation has roused quite a hornet's nest among beekeepers in this state, especially among the small beekeepers. Naturally a small beekeeper cannot afford to fill such specifications, though they no doubt can pack cleaner honey than those with better facilities.

I've had some experience with Pure Food Inspectors, and from personal experience, I can tell you a beekeeper is helpless in their hands. If they file a complaint against you, it is with the Federal Court, which leaves you only two alternatives, to plead guilty (the cheapest way), or fight the case. To fight the case you have to expect the battle to take place in Federal Court against the lawyers on the Federal payroll. That means you have to hire lawyers experienced in Federal Court trials which can easily mean $100 per day. And the Government can drag the case along as many days as it wants to. In our democratic form of Government that is one part of it that is in reality dictatorial. Only companies with millions of dollars back of them can actually plead their innocence.

And now EFB is back with us again and much is being done with antibiotics and other drugs to try to control this disease along with AFB. At best, control of these diseases by drugs of any kind is only a temporary measure. The only real control is through breeding resistancy to these diseases. Yes, I know you may laugh and ask how about breeding for resistancy when it brought about EFB in bees bred to resist AFB.

I know only too well breeding for AFB resistancy has been carried on now for almost 20 years as I happened to be one of those that helped get it started and have followed it closely ever since. The facts of the case are, so far we have done a very poor job of breeding. While it may have been scientific, it strayed far away from the Laws of Natural Selection. When we get around to better learn the lessons of Mother Nature and less from scientific text books, the better job we'll do with queen breeding.—Charles Mraz, Middlebury, Vermont.

ONTARIO, November 7

Weather Some poet, and I am not well enough versed to say who it was, has described autumn as the "season of mists and mellow fruitfulness", and that pretty aptly describes the fall season now merging into winter here in Central Ontario. October was one of the finest months in the whole year of 1953. Day after day of bright sunshine with temperatures in the 70's made the work of feeding and packing a pleasure, instead of a disagreeable job, as is sometimes the case in October.

The bees gathered small quantities of pollen and nectar during practically the entire month. Today the first snow arrived with a cold east wind and in a few hours the good earth will be covered to the depth of several inches. However, it frequently happens that the first snowfall disappears quickly, and is followed by a period of balmy weather, before winter finally takes a grip on the land.

With the outdoor work completed, the beekeeper who is in the business as a full-time job, heaves a sigh of relief, and looks forward to a few months when he can relax a little and enjoy some recreational activities. In spite of short cuts and some degree of mechanization, there is still a good deal of strenuous physical exertion required before the season's crop is handled and on the way to market. With help becoming increasingly scarce, many beekeepers are being forced to rely more and more on their own efforts. And a one-man outfit has been described as one "where there is never anyone to take hold of the other end of anything."

As mentioned in previous notes our light honey crop was meager, and in general the quality was not up to the usual standard, largely in the minimum white classification. Locally the late summer and early fall flow was average. Preliminary estimates released by the Ontario Beekeepers' Association show a total 1953 production for the province of approximately 10,000,000 pounds. This is made up of a per colony production of 27 pounds white, 12 pounds amber, 12 pounds golden, and six pounds dark for a total of 57 pounds per colony.

Sales of honey have been brisk and the market will probably be rather bare before the 1954 crop is available. For many years amber and dark honeys have been slow sellers on the Canadian market, no doubt because sales appeal has consistently been built around white honey. However, since the war considerable numbers of Europeans have emigrated to Canada, and these people are accustomed to the darker stronger flavored honeys and prefer them. Consequently a brisk demand has developed among these immigrants for our amber and dark honey, which promises to make a considerable dent in our production.

Another booklet in a series published by the Apiculture Department, Ontario Agricultural College, has been received. It is entitled "Packing Bees in Asphalt Paper". It outlines the method step by step and is well illustrated by actual photographic reproductions. The Department has issued a number of these booklets, which I believe may be had for the asking, and collectively they form a very complete treatise on all beekeeping operations and are much appreciated by beekeepers, novices and veterans alike.

Miscellaneous: Hunting season has rolled around again and quite a number of beekeepers make it their annual holiday. From this town of 40,000 population it is only an hour's drive to areas inhabited by deer, moose, elk, coons, beavers, grouse, and yes, bears. These latter are really a headache. There is no bounty on them, and they are increasing in numbers. Possibly due to scarcity of food in their native haunts they are migrating to the thickly settled agricultural areas, and establishing themselves in farm woodlots. As may be expected they consider beehives fair game, and are doing serious damage.

Well, 1953 is ebbing away, so I will conclude these rambling notes with Christmas greetings and the hope that 1954 will see peace, happiness, and prosperity for all beekeepers on both sides of "the invisible boundary". —Allan T. Brown, Peterborough, Ont.

Second Glances

C.M. Isaacson

Rendering of beeswax is a job requiring close attention, both because of possible damage to the wax itself and because hot wax is highly inflammable. Methods using steam as the melting agent are by far the safest. If your rendering tank is of galvanized iron, however, heat the wax as little as possible after it is melted, or the appearance (and even the quality of the wax) will be harmed. And keep in mind two other cautions in the article (page 649)—dip as much wax as possible from your melting tank immediately after it is melted; and when using a wax press, release and apply the pressure repeatedly in order to do an efficient job.

Honey bees are essential for legume pollination, as many species are self sterile—and wild pollinating insects are becoming insufficient in numbers to do an efficient job (page 653). Honey bees can be successful red clover pollinators if the competition from other plants with more easily accessible nectar is not too great. Mr. Smith advises placement of colonies right in the red clover field to be pollinated. They are not dependable for use in alfalfa seed production, however, unless very large numbers of colonies per acre are used. And always remember that only **strong** colonies are suitable for pollination work.

Bees are fine for 4-H projects, benefiting both the boys in the work and many others who gain by their pollination service. The very real interest beekeeping offers is an advantage also —as is the small amount of time needed for their care, and the extra knowledge gained in regard to insect life. More power to those promoting the projects.

European honey markets have been reopened through the Export Subsidy Program of the past several years (page 658). Mr. Willson also tells us that some of the merchandizing methods he saw on his trip abroad have much that we can learn from in originality and consumer appeal (page 658).

Thirty three pounds of bee venom is a very large amount when one considers the tiny amount in one sting (page 662). The workers must have especially adept hands to "gather" up to 9000 stings in a single day. Use of the prepared venom for combatting rheumatism is evidently much more developed in Europe than in our own country.

The tragic ending to "The Bees of Kiliatos" points very strongly the essential service bees render in pollination. The plan of escape devised by the story's "hero" was perfectly planned except for the omission of this one factor. In actuality, if there were no honey bees, our whole agriculture would be radically changed, and with it, our way of life. Bees are a seemingly small but very important part of the Maker's plan.

Flash heaters are desirable for heating honey, and a roll type of equipment for cooling, says Dr. E. J. Dyce in his article on honey packing (page 667). Honey should not be held at a high temperature for any length of time. It should also be strained before heating above the melting point of wax; and glass or stainless steel equipment are best for honey packing. Filtering of honey is widely done, and while many of us do not believe it is wise, we must accept the fact that the consumer trade as now constituted demands it in many cases for liquid honey.

The slowing down of rapid temperature changes IS perhaps the biggest benefit from packing. I think you have hit it right there, Propolis Pete. Bees are enabled to recluster gradually, move fresh honey within their cluster, etc; much more easily than in unpacked colonies when those big thermometer drops come. But, of course, one must first "pack in honey" (and pollen) a **real** colony of bees.

An understanding of fundamentals in bee behavior can aid materially in obtaining success in all phases of beekeeping. This is certainly true in preparation for wintering of colonies. Large clusters of young bees can keep up the required temperature much more easily, thus insuring against harm caused by excessive moisture. Ample quantities of good stores—**properly positioned** — are the best "packing" possible. And there must be a good windbreak and (or) other protection against storm and extreme cold.

Bee Facts

(A Digest of Scientific Research)

The Cantaloup as a Honey Plant

In Arizona, cantaloup flowers are regarded as a minor source of less desirable quality of honey by some beekeepers in the melon area, while others report good flows at times. So reports S. E. McGregor and Frank E. Todd, entomologists of the Southwestern Bee Culture Laboratory at the University of Arizona.

They add that one beekeeper who has operated in the area for several years, reports that bees get little or no nectar until the end of the flowering period and then only if the humidity is high.

McGregor and Todd carried on an investigation to determine the value of honey bees and other insects as pollinators of cantaloup. In the area under observation native bees were not considered to be a factor in the pollination of melons. On the other hand, conclusive evidence showed that the grower must depend upon the honey bee for commercial production of cantaloups.

One colony per acre is suggested as adequate for maximum cantaloup production provided the colonies are located on the edge of the field by the time the first flowers appear.

The melon flower opened between 7 and 8 a.m. and nectar secretion began at once, the entomologists point out. About three milligrams of nectar was produced by 11 a.m. after which secretion apparently ceased in the staminate (male) flower. In the hermaphroditic flower (male and female organs on the same flower) secretion continued into the afternoon, a total of 18 milligrams being produced.

Bee activity began soon after the flower opened and reached a peak shortly before noon, with little activity in the afternoon. Individually, the cantaloup flower produced twice as much nectar of about the same sugar content as did the alfalfa flower, but alfalfa produced 300 times as many flowers to the acre.

Reference: McGregor S. E. & F. E. Todd. Cantaloup Production with Honey Bees. J. Econ. Ent. 45: (1); 43. 1952.

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Bee Sting Sensitivity

The author discusses some recent contributions on allergy in the medical literature. He devotes one paragraph to bee sensitivity.

One investigator points out that this reaction is very specific, i.e. a patient abnormally sensitive to the sting of a bee is not sensitive to the sting of a wasp. Desensitization to bee stings to prevent severe reactions is possible but it is difficult to determine when to discontinue treatment since both patients and their doctors are understandingly reluctant to submit to a test.

One author believes that patients who have been desensitized by treatment are less likely to be stung by insects; perhaps abnormally sensitive patients possess a definite attraction to biting or stinging insects.

Another author believes that subjects with allergic reactions to bee stings more often show minor responses such as hives (no pun intended) rather than the severe, anaphylactic type of reaction.

Physicians may be interested in learning of the therapeutic agents recommended here for such reactions. Apparently epinephrine is recommended most commonly for severe cases although calcium salts intravenously every three or four hours often relieve edema and pruritus.

Some state that antihistaminic agents are merely palliative and should not be relied upon as the sole measure in emergencies. One article mentions the use of cortisone and ACTH.

Reference: Halpin, L. J. Review of Miscellaneous Allergy 1952. Ann. Allergy 11:513 (July-Aug.) 1953.

Southern Meeting a Great Success

W. B. Crawford, President of North Georgia Association, Mrs. Crawford, and Mrs. Phillips at the registration desk at Atlanta.

ONE HUNDRED and twenty-six beekeepers from 16 states gathered at Atlanta, Georgia, November 2nd and 3rd, in a joint meeting between the Southern States Beekeeping Federation, the American Bee Breeders' Association, the Georgia Beekeepers' Association, and the North Georgia Beekeepers' Association. The meeting celebrated the 25th anniversary of the Southern States Beekeeping Federation and was opened with a welcome from the Honorable Tom Linder, Commissioner of Agriculture for the State of Georgia.

Professor David Dunavan, President of the Southern States Beekeeping Federation, reviewed the work of this organization and called on many of the members who had attended the first meeting 25 years before.

Leslie Lewis, Vice-President, expressed humorously the underlying principles of the organization by saying "We ain't mad at nobody, we just want everybody to have a chance to visit and discuss mutual problems. We have no by-laws, constitution, or dues".

State Apiarist of Tennessee and past President of ABBA, Leslie Little and Mrs. Little of Shelbyville, Tenn. enjoyed the barbecue with Mr. H. W. Weatherford, apiary Inspector of Virginia at the extreme right.

Harriett Grace gave a report of the activity of the American Honey Institute. Those who have seen the literature put out by the Institute and furnished at no charge to all who requested it during the National Honey Week in October, carried on by the Plentiful Foods' Division of the Department of Agriculture, can understand the importance and value to the industry of the Institute's work.

R. B. Willson of New York, pointed out again the importance of the value of bees to the food of mankind. Mr.

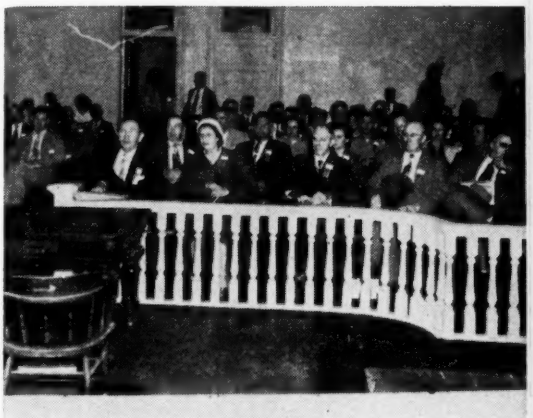
Mrs. S. E. Grant of Atlanta is welcomed to the barbecue by Mr. and Mrs. Hudson, host and hostess at the H. G. Hastings Company store in Atlanta.

Willson recently made news in all the newspapers of the country by pointing out the difference in the economy of this country with bees and that of China without bees.

M. G. Dadant, Hamilton, Illinois, discussed the past, present, and future of American Beekeeping and mentioned that changing conditions require new studies on nectar secretion and soil fertility.

Object of Honey Council

Alan Root, Chairman of the National Honey Council, pointed out that the Council is an advisory organization composed of four producers from the



Florida State Beekeepers' annual meeting at Blountstown, Florida, November 5th and 6th.

American Beekeeping Federation, one queen breeder from ABBA, two packers from the National Honey Packers' and Dealers' Association, and two supply manufacturers representing Bee Industries Association. The work of the Council is to correlate, advise, and help the member organizations.

James I. Hambleton, Division of Bee Culture of the U. S. Department of Agriculture at Beltsville, Maryland, discussed the need for more young

Plant Commissioner, Ed L. Ayers, Gainesville, Florida; John D. Haynie, Extension Apiculturist, Gainesville; P. L. Leath of Blountstown, past President of the Florida Association; Rev. W. O. Calhoun.

beekeepers to take up beekeeping as a profession in order to keep this important industry functioning properly. He was followed by W. A. Stephen, North Carolina, and Dr. C. L. Farrar, Madison, Wisconsin, who discussed some new work on antibiotics as it applies to European foulbrood. Some encouraging results have thus far been obtained.

Hastings' Company Sponsors Barbecue

A real southern barbecue was held at the H. G. Hastings' Company store in Atlanta. This gave a wonderful opportunity for beekeepers to do what they love best, visit among themselves.

The next day, George B. Daken of

(Continued on page 757)

Honey Queen Patsy Russ pins a flower on Congressman Robt. T. Sikes at the Blountstown, Florida State Beekeepers' annual meeting.

A Talk to Beginners

M. J. Deyell

(Continued from November)

I COULD GO on and on, mentioning little incidents that occurred during my Western trip, most of them amusing, others not so amusing. However, the story must have a termination point so this is the last installment.

A Car Goes Over the Precipice

I hesitate somewhat to relate the following horrible experience which took all of the joy out of an otherwise pleasurable day.

As I was driving along the ledge of a high, steep mountain in Oregon, on a narrow guage road with no fence or railing to prevent a machine from slipping off into a seemingly bottomless abyss, I suddenly came to an abrupt turn in the road and was about to make the turn when something seemed to tell me that I should pause a moment before rounding the corner. As I brought my car to a standstill I heard a screeching sound and, in a flash, a car coming down the hill from the opposite direction shot past within a few inches of my front bumper at what appeared to be a speed of about 60 miles an hour, jumped over a slight elevation at the side of the road, sheared a branch off a tree, then plunged into the deep valley below. If I had reached this corner a few seconds earlier, and if I had not stopped when I did, the runaway car coming down the hill would have swept me over the precipice, too. A few minutes before reaching that corner I had to slow down a bit to avoid hitting a big deer that crossed the road ahead of me. Perhaps the deer helped to save my life, or, my Guardian Angel must have been on duty that morning. At any rate, my time hadn't come.

There was a small coffee shop near the corner and the proprietor sent out an SOS call for an ambulance. It was impossible for those present to go down the mountain side. I never learned how many people were in the car or what became of them, even though I listened to my radio in the car and watched the papers next morning. I could hardly get to sleep that night and thought of the catastrophe first thing the following morning.

California an Important State

If any of you readers think that California isn't important you should talk with some of the Californians. There are more hives of bees in California (close to half a million) than in any other state in the Union. The honey crop during 1952 was the largest on record—about 48,000,000 pounds. As one extreme usually follows another, the 1953 crop was comparatively small.

After visiting in the neighborhood of San Francisco for a few days, five of us, my two daughters, a son-in-law, and a cousin, drove to Davis, an inland town, to see the Pacific Coast Bee Culture Laboratory where we met George H. Vansell and Dr. H. H. Laidlaw who is in charge of the queen bee breeding program there. Unfortunately, Dr. J. E. Eckert was out of town at that time. We had the pleasure of having Dr. Laidlaw explain to us some of the intricacies of artificial insemination of queen bees also the procedure followed in their bee-breeding work, all of which was extremely interesting.

IT SO HAPPENS that I was one of the people taking an advanced short course in beekeeping, under the late Dr. E. F. Phillips, in January, 1926, at Cornell University, who saw the late Dr. Lloyd Watson give the first public demonstration of artificial insemination of a queen bee. Perhaps some of you readers were present on that occasion. The apparatus used at that time was somewhat crude. Since then some refinements have been added to the technique.

The temperature at Davis that day was above 100°F., but in spite of the extremely hot weather I learned from Don Beal, a student under Dr. Eckert, that bees were storing some surplus from star thistle and alfalfa in that area.

On the return trip to San Francisco it was a relief to meet some refreshing Pacific breezes when we reached a higher elevation between the mountain ranges. On reaching San Francisco later in the evening, the temperature of the car radiator lowered consider-

ably and a light topcoat felt comfortable. Such are the weather and temperature variations in California.

While spending a few days with a cousin in Alhambra, I had the pleasure of a visit with Wendell Shore of Hamilton & Company, honey packers in Los Angeles. After calling on Bob Bryant of Bryant & Sawyer Company, we attended a dinner of the Foreign Trade Association at the Biltmore Hotel and met quite a number of fine fellows representing different businesses. After dinner, we visited the new plant of Hamilton & Company, 2613 South Yates Avenue, which is up to date in every way.

A Trip to Colton

THE FOLLOWING day my cousin and I made a trip to Colton to call on Woodrow Miller of the Miller Co. who operates a large number of colonies throughout the western and midwestern states. He mentioned that the unusually dry weather which prevailed at that time made it necessary to move some bees out of that immediate area temporarily. They will be moved back again late this fall to take advantage of the early honey flow next spring.

Mr. Miller, during his recent trip to Europe, collected some samples of honey, among which was heather honey from the moors of England. He gave us each an attractive earthen jar of heather honey, the side of which bears a picture of Queen Elizabeth. This honey is considered a choice delicacy among the people who live where it is produced. It seems obvious that people in the U. S. who are accustomed to clover honey, also orange and sage, might prefer these to heather. This simply goes to show that people like the honey that they were brought up on.

We also visited a branch of the Sioux City Association at Colton, which is adjacent to the Miller plant. This is, indeed, an up-to-date honey processing plant with modern equipment. Mr. C. C. Gralapp, Manager, took us on a tour of inspection.

I spent a few days in San Diego, which has an ideal climate—never too hot in the day time, and always cool enough at night to permit one to sleep well. I wanted to set foot on Mexican soil so visited Tijuana, just over the

Wendell Shore, Manager, Hamilton & Co.

Dr. H. H. Laidlaw and family.

Woodrow Miller in front of his plant.

line. People there seem not to be in any hurry. If they do not finish their work today, they may tomorrow.

Starting Home

After one has been away for a time and has seen and done a lot of things, it is usually good to get started home. From San Diego I traveled in a northeasterly direction to reach Route 66. There is likely to be a considerable distance between filling stations. As I was speeding along that morning, I was congratulating myself on not having had any car trouble. As I passed a filling station, my car hesitated and later gave a "cough", then stopped, stone still. Fortunately, I was within walking distance of the station. I found out that even a Dodge car does not run on its reputation!

Those of you who have driven on Route 66 know what is called the desert, in lower California. It becomes terrifically hot during the day, in fact, so hot that one cannot drive without experiencing considerable discomfort. I was advised to make the trip at night when the air was somewhat cooler. However, being able to endure a considerable amount of heat, I decided to make the trip during the day.

Giving Two Weary Travelers a Lift

After I got started across the desert I overtook two middle-aged fellows trudging along through the sand in the intense heat. Just why they should have undertaken such a journey during the day is beyond me. When I pulled up along side of them, they had such wistful looks in their eyes, I just had to stop. I realize it is dangerous to pick up any "Tom, Dick, or Harry", and some day I may pick up the wrong fellow and get "socked" in the head.

AS I OPENED the car door, one of them said, "Say, Mr. we could kiss you". They appeared to be decent chaps. I asked them where they were going and they said, "to Detroit". I replied, "I suppose you are going to pick up your new Cadillac". One said he had been a cab driver for 15 years in New York City. Having lived there, I questioned him a bit to find out if he actually had been there and I was satisfied that he was telling the truth. At any rate, they didn't hold me up and were truly grateful for the lift I gave them. During the years I have learned a lot from hitch-hikers. I could write a book entitled, "Hitch-hikers I Have Met".

A Hot Night at Needles

If any of you have been at Needles, California, near the Arizona line, during the month of July, you will know how boiling hot the weather is. I arrived there about seven o'clock in the evening. I was terribly thirsty and began drinking water and root beer. I couldn't get enough liquid. The weather was too hot for sleeping in a building so I spent the night in my home on wheels, on my air mattress. The temperature had gone up to 108° during the day and fallen to 98° that night. Even though I could not sleep, I did relax and was ready to start on again the following morning.

Route 66 through New Mexico and northern Texas is very good. They allow you to drive 65 miles per hour. A Cadillac passed me while I was driving the limit. I tried to follow it and got up to 80 miles per hour. Just how much faster my Dodge will travel, I do not know, nor do I intend to find out.

While passing through Chandler, Oklahoma, I noticed a sign, "Taylor Honey Company". I had a nice visit with Mr. Talley, the Manager. I had met Mr. Taylor several times at national meetings. His company operates bees in western Iowa as well as Oklahoma.

I stayed over Sunday night in St. Louis with a nephew, then next day drove to Medina, 530 miles, in 13 hours. It was good to get home on August 3, without getting a scratch on the car or myself. One of the first things I did the following day was to visit my four apiaries near Medina to see if I had put on enough supers before leaving on my trip June 22. I had. Dry weather shortened the crop of white honey in this area.

As I look back on my 9,000-mile trip it now seems like a dream. However, I feel amply repaid for the time and effort expended in making the trip. I met some wonderful people, learned some things about beekeeping outside of Ohio, saw some marvelous sights, and incidentally, had my outlook on life enlarged.

Just News

Middlesex County Beekeepers' Association (Mass.) will hold its December meeting two weeks earlier than usual because of the holiday season. Those wishing to attend will come to the State of Massachusetts Experimental Field Station, Beaver Street, Waltham, Mass., at 6:30 P.M. on December 12. The meeting will start with a buffet dinner.—John H. Furber, Sec.-Treas.

* * *

The Ohio State Beekeepers' Association will hold its winter meeting December 7, 9:15 A.M. in the State Office Building in down-town Columbus. A regular business meeting will be held, with election of officers for the coming year, and payment of membership dues. There will be door prizes. Bring the ladies, too.—R. L. Livermore, Sec.

* * *

The annual meeting of the **Lake Region Beekeepers' Association** will be held in Fergus Falls, Minnesota, January 5, 1954. This is an afternoon meeting beginning at 2 p.m.—L. W. Sundberg.

* * *

The Southern Tier Beekeepers' Association will hold its next meeting at 8 p.m., Tuesday, December 15, at the C. L. Reynolds Radio and Appliance Salesroom, 25-27 Sturgis Street, Binghamton, New York. Light lunch will be served. Dr. E. J. Dyce, professor of apiculture at Cornell University, will be the guest speaker. The topic will be "Beekeeping in Peru". This will be accompanied with pictures Dr. Dyce took while there.—H. B. Webb, Publicity.

* * *

Oakland County (Michigan) Beekeepers' Association on December 7, will have a get-together at the Pontiac Township Hall, corner of Pontiac and Updyke Roads at 8 p.m. Refreshments will be served.—Al Bzenko, Pres.

* * *

The Western Missouri Beekeepers' Association will hold its next meeting on Sunday, December 13, at 2:30 p.m. at 7011 Prospect, Kansas City, Mo. Visitors welcome.—Mrs. R. W. Cornforth, Sec.-Treas.

* * *

Louisiana Beekeepers' Association will hold its annual meeting in the Capitol Building, Baton Rouge, on December 8 at 9 a.m. Everyone is invited. —Otis Mitchell, President.

* * *

The Colorado Beekeepers' Association will hold its annual meeting at the Auditorium Hotel in Denver on December 14 and 15.

* * *

The annual meeting of the **Minnesota Beekeepers' Association** will be held on December 5, starting at 9:30 A.M. sharp at the Curtiss Hotel in Minneapolis. A good program is planned as well as a group luncheon at noon and a banquet in the evening. A hearing will be held on the proposed honey grades for Minnesota at 10:00 A.M. in the State Office Building in St. Paul. A tour through the University Farm Extracting plant and Bee Disease Laboratory is tentatively planned for the afternoon of December 4. Come one and all and **bring your friends!**—Robert Banker, Sec.

(Continued on page 757)

Skyline of Baltimore.—Photo courtesy Baltimore Convention Bureau.

Baltimore in '54

By George J. Abrams, Apiculturist, University of Maryland, College Park, Md.

WHEN HENRY A. SCHAEFER, President of the American Beekeeping Federation, taps his gavel the morning of January 27, 1954 in the Lord Baltimore Hotel, Baltimore, he will open the first National Beekeepers' Convention ever held east of the Allegheny's. And it will be the first national beekeepers' conclave held in the "near east" since before the war.

A sneak preview of the program reveals a fine **bee disease** section with the country's leading authoritives discussing Nosema, American and European foulbrood. The latest work on **bee breeding** will be presented, as will the outstanding work being done on **honey research.** The **State extension specialists** will discuss their important work of disseminating up-to-date bee culture information to 4-H Clubs, F.F.A., and adult groups. (This will be a panel type of discussion with full, open meeting, from-the-floor audience participation encouraged.)

Pollination and the **effects of insecticides** will receive the attention it so justly deserves. (A panel type of discussion, handled by leaders in the field—it too, will encourage audience participation.) No first rate program could possibly omit **honey marketing** and **publicity.** These two important subjects will occupy prominent places on the program as will the **U.S.D.A. programs** for moving honey.

Of special interest to beginner or amateur beekeepers will be an entire afternoon devoted solely to problems of greatest concern to the small beekeepers. Authorities will discuss **Wintering, Swarm Control, Chunk and Comb Honey Production, Marketing for Small Beekeepers, History of American Beekeeping,** and **Bee Stings and Allergies.**

Every associated and allied organization aiding and abetting the beekeeping industry will have its place on the program and an opportunity to tell the beekeepers of the nation what it is doing to promote bee culture. Reports and recommendations from the following groups will be of tremendous interest and value: The American Honey Institute; The Honey Industry Council; The Southern States Beekeeping Federation; The Bee Industries Association; The National Honey Packers and Dealers Association; and the Apiary Inspectors of America.

NOW, IN AMERICA at least, a convention isn't a convention unless there are exhibits, displays, and entertainment. These we will have. The merry Maryland beekeepers are going to see to that.

The Welcoming Committee assisted by University of Maryland Beauty Queens will meet you at the door and lend assistance with the registration and introductions.

Buy and Sell

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate: 15c per counted word, each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in by the 10th of the month preceeding publication.

HONEY FOR SALE

WE BUY AND SELL all varieties of honey. Any quantity. Write us for best prices obtainable. The Hubbard Apiaries, Onsted, Michigan.

IOWA Honey, one can or truck loads. Russell D. Smalley, Beaver, Iowa.

CLOVER extracted honey in sixties. Abram Brubaker, Lancaster, Pa., Rt. 1.

FOR SALE—White Clover Honey, write for prices. Lloyd E. Allen, Tipton, Mich.

CLOVER HONEY, white extracted, 17c pound in sixties, 5 or more 60's, at 16c. Heated and strained, 18c in sixties 17c 5 or more. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTICE—We can not guarantee honey buyers' financial responsibility, and advise all beekeepers to sell for cash only or on C.O.D. terms except where the buyer has thoroughly established his credit with the seller.

CASH for your comb honey and all types extracted. Send sample and best price. Buckeye Honey Co., 3930 No. High St., Columbus 14, Ohio.

CASH for Beeswax. Write as to quantity and we will quote price. Muench-Kreuzer Candle Co., Inc., Syracuse, N. Y.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 2613 South Yates Ave., Los Angeles 22, California.

WANTED—Light amber clover, amber, goldenrod, buckwheat. Advise what you have for immediate delivery. Roscoe F. Wixson, Dundee, New York.

WRITE FOR shipping tags and quotations on rendered beeswax. We buy from one pound up and if you have over 25 pounds let us work it into foundation for you at a 25 percent saving. Walter T. Kelley Co., Clarkson, Kentucky.

HONEY WANTED, any amount. If you want more for your honey, sell it to Cloverdale Honey Co., Fredonia, New York.

CASH PAID for white and amber extracted honey. Send samples and state quantity available. Prairie View Honey Company, 12303 - 12th St., Detroit 6, Mich.

WANTED—Carloads or less of honey and wax. Any grade. Send sample and best cash price. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

ALL GRADES HONEY AND WAX WANTED—Mail samples, advise quantity and cash prices delivered to us. HONEY SALES COMPANY, 1808 NO. WASHINGTON AVE., MINNEAPOLIS 11, MINN.

CASH FOR YOUR HONEY—Light extracted or comb. Regular trade send sample. 60-pound cans furnished if desired. W. R. Moomaw, Stone Creek, Ohio.

BEESWAX OR HONEY WANTED in trade for supplies or cash. Hodgson Bee Supplies, Ltd., 575 - 13th Ave., New Westminster, B. C., Canada.

WANTED — Honey all grades. Quote prices and send sample. Write Stoller Honey Farms, Latty, Ohio.

WANTED — White extracted or comb honey. Send sample. Millersport Honey Co., Millersport, Ohio.

HONEY WANTED, all grades in 60's. Mail samples, advise quantity, best price. A. I. Root Company of Syracuse, 1112-14 E. Erie Blvd., Syracuse, N. Y.

WANTED buckwheat honey. Eastern Food Products, 115 Division Ave., Brooklyn, N. Y.

WANTED—Chunk comb and extract honey. Victor Honey Farms, Rockwall, Texas.

HONEY WANTED; Large quantities. All grades. Cash price. Send samples. Finger Lakes Honey Coop., Groton, N. Y.

BEES AND QUEENS FOR SALE

We use all possible care in accepting advertisements but we cannot be held responsible in case disease occurs among bees sold or if dissatisfaction occurs. We suggest that prospective buyers ask for certificate of inspection as a matter of precaution.

YANCEY HUSTLERS—Three-band Italians. They get the honey. Queens balance of season, $1.00; $10.00 dozen. Caney Valley Apiaries, 2500 Nichols, Bay City, Texas.

YELLOW ITALIAN BEES. Real producers. Health certificate. Satisfaction guaranteed. Queens, $1.00 Airmail. O. E. Brown, Route 1, Asheboro, N. C.

CAUCASIAN Bees and Queens. 2-lb. pkg., $2.75; 3-lb. pkg., $3.50. Queens 75c each; 100, $65.00. Lewis & Tillery Bee Co., Greenville, Ala.

THREE-BANDED ITALIAN bees and queens of our regular strain. Also Dadant's new four way Hybrids for 1954. Alamance Bee Company, Graham, N. C., Phone 4703.

PACKAGE BEES—SUPPLIES, trade for extractor, typewriter, garden tractor. Write. Crenshaw County Apiaries, Rutledge, Ala.

FOR SALE—16,000 colonies complete with all equipment, fleet of trucks, branch warehouses, etc. located in western and middle western states. Woodrow Miller, Colton, California.

HONEY WANTED
Carloads and less than carloads. Mail sample and best prices in all grades.
C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

Merry Christmas
•
MITCHELL'S APIARIES
Bunkie, La.

CAUCASIANS
CARNIOLANS
We wish all a very MERRY CHRISTMAS and a happy and prosperous 1954. We plan to help a little by producing more and better queens. Farthest south of any Queen Breeder in the U. S. Keep us in mind for early 1954 queens.
ALBERT G. HANN, La Belle, Florida

"GULF BREEZE"
for 1954
MERRY CHRISTMAS and HAPPY NEW YEAR to all. Book your orders for packages and queens now.
BESSONET BEE CO.
Donaldsonville, La.

HONEY WANTED
Bryant & Sawyer
2425 Hunter St., Los Angeles 21

PACKAGE BEES AND QUEENS
"ITALIANS"
Let Us Plan With You In 1954
Quality Does Not Cost —It Pays
The Wilbanks Apiaries
Claxton, Georgia

HONEY LABELS
Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.
C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

FOR SALE

WRITE FOR CATALOG — Quality Bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies and Comb Foundation. Onsted, Michigan.

THE BIGGEST BEE SUPPLY Catalog published (64 pages) free for the asking. Listing many items not found in other Catalogs. No agents—buy direct and save 20%. WALTER T. KELLEY CO., CLARKSON, KENTUCKY.

FOR SALE — New heart cypress 10-frame bottom boards. K.D., 10 or more $1.00 each; 50 or more, 90 cents each; 100 or more, 85 cents each. One nailed up sample postpaid $1.25. Fred L. Poole, Elizabethtown, Rt. 2, Box 67, No. Car.

ELECTRO Filling Machines, users and distributors. Write Stoller Honey Farms, Latty, Ohio.

BEE SUPPLIES—Tin packages; 10 sizes glass jars; paper shipping supplies; window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

The only comb foundation plant in the east. We sell foundation, work your wax, render combs and cappings. Robinson's Wax Works, R. D. 3, Auburn, N. Y.

FOR SALE—500 empty 10-frame supers, mitered construction, 40c each, scorched, sterilized, 200 all wire queen excluders, 40c each. Chester Kintner, Alvordton, O.

A gold mine for a guy afflicted with bee fever. 44 volumes of Gleanings in Bee Culture, 20 volumes bound, also some Beekeepers' Review and American Bee Journals. First check $65.00 are yours. E. S. Hacker, 567 Palm St., Lancaster, Pa.

SEEDS

HONEY PLANTS: Seeds-Trees-Plants. Illustrated catalog on request. Pellett Gardens, Atlantic, Iowa.

HONEY PLANTS, trees, shrubs, perennials. Unusual varieties most desirable for planting and make honey. New 1954 catalog—actual photo illustrations. Send for your free copy today. Pellett Gardens, Atlantic, Iowa.

MISCELLANEOUS

SECTION COMB HONEY production procedure steps, 50c. Glossary of Beekeeping Terms, 50c. United Industries, Dept. L, Box 440, Madison 1, Wisc.

Bargain in new or used honey cans or Root Supplies for cash or honey. Buckeye Honey Company, 3930 N. High St., Columbus 14, Ohio.

BOOKBINDING: Bind your "Gleanings" in rich brown cloth. $2.25 per volume. E. Bradford, Westminster, Colorado.

HELP WANTED

WANTED — Young men interested in learning bee supply business. Openings in metal and printing departments. The A. I. Root Co., Medina, Ohio.

HELP WANTED — Two men for the coming season. Give references. Howard Weaver, Navasota, Texas.

WANTED: Experienced queen breeder for season of 54. Walter D. Leverette, P. O. Box 364, Fort Pierce, Florida.

WANTED: Reliable, experienced beemen. C. H. Schader, Sunnyside, Washington.

WANTED

WANTED: Several hundred standard ten-frame supers, with or without frames. Must be clean. Fred Blummer, Arnold, Nebraska.

WANTED—10-50 colonies or equipment in southern Michigan. Al's Apiaries, 9321 Broadstreet, Detroit.

MAGAZINES

THE BEE WORLD international and scientific journal on bees and beekeeping, with apiculture abstracts. Monthly, including membership in the Bee Research Association, $3.00 per annum, including apicultural abstracts. Dr. Eva Crane, Director, 55 Newland Park, Hull, Yorks, Eng.

If you are taking time to read, why not read the best? Condensed to save you time. Illustrated to give you pleasure.

Modern Beekeeping

The Picture Bee Magazine

Box 210 Clarkson, Kentucky

ITALIAN

Package Bees and Queens

Jackson Apiaries

Box 58 Funston, Ga.

JUST NEWS

(Continued from page 753)

The Westchester County Beekeepers' Association will hold its next meeting at 2:30 P.M., Sunday, December 20, at the Odd Fellows Hall, 20 Lockwood Ave., New Rochelle, N. Y. At this time we will have our Xmas party. —Carlton E. Slater, Publicity.

* * *

Word has just been received that **Lin Whaley,** recently appointed chief Apiary Inspector of Massachusetts, died of a heart attack. He was a leader in the many county associations to which he belonged. Mr. Whaley will be missed by his many beekeeping friends in New England and New York City, where he was associated with The A. I. Root Company for a long time.

* * *

The fiction story of "**The Bees of Kiliatos**" by Gordon Cotler, which we reprinted through the courtesy of the ESQUIRE MAGAZINE in our October and November issues, has met with enthusiasm from our readers. We should like to publish other stories.

Season's Greetings

Wishing you a most happy Christmas. We take this opportunity to thank you for the business given us the past season.

In your fireside thoughts during the winter plan to use **Island Hybrid** or **Rossman stock** queens in your 1954 beekeeping.

Going South this winter? Stop by to see us.

Rossman Apiaries

Box 133 Moultrie, Ga.

ATLANTA MEETING

(Continued from page 749)

the Hazel-Atlas Glass Company, discussed the importance and progress made in glass packaging of honey. Jon Clement, of the Owens-Illinois Glass Company, showed the value of having the name of the product on the cap of the jar so that when the honey is on lower shelves, as it is bound to be at times in a modern super market, the product can be easily recognized.

Harold J. Clay of the U. S. D. A., Production and Marketing Administration, discussed honey price supports and the removal of export subsidy and gave the reasons for the necessity of this action. No hint was given at what level the honey support would be for this coming year, but, of course, under the present law it is manditory to be continued until 1955. It must, under the law, be supported at 65 per cent to 90 per cent of parity. This past year it has been at 70 per cent.

G. W. Vest of Lynchburg, Virginia, told of the work done in his state in apple pollination and the part the

(Continued on page 760)

SELECTED ITALIAN QUEENS
$1.00 each until Jan. 1, 1954
CAUCASIANS
90c
All queens shipped Air Mail and guaranteed to please. From June 1st to Nov. 1st.

Walter D. Leverette Apiaries

P.O. Box 364 Fort Pierce, Fla.

Package Bees & Queens
Quality & Service
C. F. KOEHNEN & SONS
Glenn, California

Booking orders now. Over 30 years a shipper. Send for Free Circulars.
BLUE BONNET APIARIES
Weslaco, Texas

GIRARDEAU APIARIES
Tifton, Ga.
Shippers of
Italian Package Bees
and Queens

CAUCASIAN APIARIES
Breeders of
Ladylike Caucasian
bees and queens
Castleberry, Ala.

ITALIAN QUEENS
$1.00 each
Pure mating guaranteed
W. E. PLANT
Hattiesburg, Mississippi

CHEMOTHERAPY OF FOUL BROOD DISEASES

(Continued from page 722)

the chemicals should be used so as to prevent the introduction of the chemicals into marketable honey. While they may not be harmful in themselves in the dilute quantities in which they could be introduced, their introduction would constitute an adulteration, something that should definitely be avoided.

It would seem advisable, therefore, for beekeepers not to use more chemicals than are absolutely necessary for either prevention or cure of the diseases. They should continue to rely on thorough periodic inspections and good beekeeping practices in the control of bee diseases where diseases are known to be prevalent.

The production of improved resistant strains through selective breeding should be continued. Antibiotics can be used to prevent the unnecessary destruction of good honey or of good beekeeping equipment and to keep producing units in operation. It is my belief that the use of antibiotics in the control of bee diseases is just beginning and when properly used on a county wide or state wide basis can result in the elimination of this major threat to an essential industry. This would involve careful periodic inspections and supervision of the treated colonies.

It is my candid belief that the arbitrary, enforced burning of equipment exposed to AFB has been outmoded by the proper use of antibiotics and our burning laws should be modified to permit the use of any other method that will prevent infection from getting started or cure infected colonies.

QUEENS
By Air Mail
75c each
10 or more, 65c each
CARLUS T. HARPER
New Brockton, Ala.

WISCONSIN HONEY PRODUCING AREA

(Continued from page 723)

ing. Limestone soil has made this one of the better areas for beekeeping in the past. Apparently dairy farming is on a downward trend, and should it continue, much of the area could be lost to beekeepers. Fields of sweet corn, cabbage, field corn, and soybeans yield little honey in Wisconsin.

The most revolutionary improvement in the hive since Langstroth—

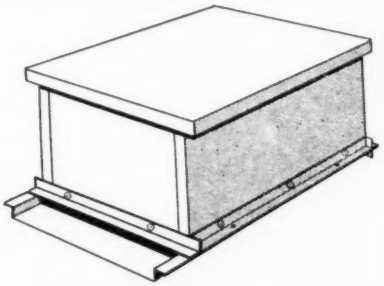
The "UNI-TEMP" ALUMINUM HIVE

- Cooler in summer
- Warmer in winter
- Exceptionally long life
- Light weight
- Rust free, rot free
- Never needs painting
- Accurately bee-spaced

Overseas distributors wanted.

Ask for our Free Catalog

The A. H. HALE CO. **Hapeville, Georgia**



LIVE AND LEARN

(Continued from page 735)

big returns if handled right. For instance, how many people do you suppose go into a grocery store for the express purpose of buying a pound jar of honey? The only time that they will do that is when Junior has a cold and somebody tells Mama that a little honey mixed with lemon juice will cure it. So, the best place to sell honey is where people will see it. If it is buried in with a vast pile of corn syrup, maple syrup, jam, jelly or molasses, it won't move fast. But if it is piled up by itself in a big display in some other corner of the store or stand, you will be surprised at the difference in it's velocity. This year, it went the fastest when its only competition was a pile of vegetables on the stand. And, believe it or not, a gas station can sell a lot of it too, or a butcher store.

I could go on like this for another hour, but we have to leave room in Gleanings for some of the other contributors.

GOOD ITALIAN QUEENS

In Season — Write

White Pine Bee Farms Rockton, Pa.

NO BEES, NO MELONS

(Contnued from page 726)

learned that repeated bee visitation to the individual flowers increased the number of seeds. Melons with fewer than 400 seeds were misshapen or below market size.

Although the consumer is not interested in the seeds of the cantaloup, he does want a good sweet melon. If adequate pollination does not take place early in the life of the plant the melon is not sweet.

Close observation of insects visiting cantaloup flowers revealed that honey bees, and only honey bees, were effective in pollinating cantaloups. Pollinating insects other than honey bees were practically non-existent. Thrips were present in all the flowers but were ineffective as pollinators.

One Colony Per Acre Needed

On the basis of this experiment, honey bee colonies in or by the melon field at the rate of a colony per acre is considered adequate to insure thorough pollination. The bees should be present at the beginning of flowering if the grower wants to produce the greatest quantity of the best quality of melons, and maintain or increase that $15,000,000 Arizona income.

YORK'S BEES & QUEENS

Quality Bred Italians Dadant Starlines

SHIPMENTS

Parcel Post

Express

Truck

YORK BEE COMPANY Jesup, Georgia

(The Universal Apiaries)

DADANT'S STARLINE HYBRIDS

Reg. U. S. Pat. Off.

Reg. U. S. Pat. Off.

You will GO RIGHT with GARON'S 3-Banded Italians and Dadant's 4-Way Starline Hybrids. These are strains that are being handled by men continuously in the business for over 25 years.

Get ready to Cash In on the present favorable honey situation with a good crop next season. Order early. Get shipping dates most suitable for your region.

Thanks for past patronage and Season's Greetings to all.

GARON BEE COMPANY **Donaldsonville, La.**

We Wish You and Yours
an OLD FASHIONED
MERRY CHRISTMAS

Little's Apiaries

P. O. Box 122 Shelbyville, Tennessee

JENSEN Says:

"Good Will" and understanding are synonymous; so rich and full of meaning when extended in sincerity and accepted in faith. Yet so sorely needed so very much in our world today.

As the Holiday Season approaches the age-old custom of forgetting selves and remembering others comes to life in most of the Christian World at least, and so again we say—

Merry Christmas Happy New Year
and
"God Bless You"

Reg. U.S. Pat. Off.

JENSEN'S APIARIES MACON, MISSISSIPPI U. S. A.

ATLANTA MEETING

(Continued from page 757)

beekeepers played in this very essential work.

Walter Kelley of Clarkson, Kentucky, urged beekeepers to make a game of the work of keeping bees and try to put out a product of which they can be proud. Henry Schaefer, president of the American Beekeeping Federation, Osseo, Wisconsin, spoke of the work of the Federation and the need for unity and financial support.

Harvey F. York of Jesup, Georgia, discussed the problem of high express rates and said that while parcel post worked well on small shipments of package bees, and it was more economical to ship quantities of about 300 or more by private truck, buyers who normally purchased around 100 packages were seriously hurt by the high express rate. D. V. Marshall, Supervisor of the Service of the Railway Express Agency, explained the care and floor space required in the car to properly ship package bees by express, made the present rates necessary.

The new officers of the Southern States Beekeepers' Federation are A. D. Hiett, Martinsburg, West Virginia, President; Lynn M. Dewey, Merritt Island, Florida, Vice-President; Hardin S. Foster, Gainesville, Florida, Sec.

The new officers for the Georgia Beekeepers' Association are Wallace Jernigan, Homerville, Georgia, President; A. V. Dowling, Valdosta, Georgia, Vice-President; J. H. Girardeau, Jr., Tifton, Georgia, Secretary.

The new officers for the American Bee Breeders' Association are J. W. Newton, Baton Rouge, Louisiana, President; W. W. Wicht, Hattiesburg, Mississippi, Vice-President; J. F. McVay, Jackson, Alabama, Secretary.

The new officers for the Florida Beekeepers' Association are Roy Ballenger, Florida, President; Arthur J. Brady, Winter Park, Florida, Vice-President; Mrs. M. Larkin, Secretary-Treasurer.

Bee Merry this Christmas

Stover's Bees and Queens will please you as they have many others.

Good bees, good queens, good service and good business dealings is our aim.

Send us a card or letter and we will be glad to mail you circular and prices.

THE STOVER APIARIES

Mayhew, Mississippi

BETTER-BRED QUEENS **THREE-BANDED ITALIANS**

We wish to thank our many customers for the business given us this year.
We are now booking orders for 1954.

CALVERT APIARIES **Calvert, Alabama**

Peace is for the strong . . .
Buy U. S. Defense Bonds regularly!

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